

#2
~~TELEPHONE~~ TELEPHONE COMMUNICATIONS
(HAND HELD)
DWGS & CLASS A EVALUATION (ABA REPORT #1)
also instruction manual

PROJECT 2658

STAT

PART NO.	CODE	SIZE	QTY	TITLE OR DESCRIPTION	REMARKS
1742-15	1			TC1 - COMPLETE	
1742-27	2	B		ASSEMBLY, CONTACT & CONTACT, BRUSH	
1742-53	3	C		ASSEMBLY - GOVERNOR	
1742-58	4	B		BATTERY CONTACT ASSEMBLY & PRINTED CIRCUIT,	
1742-61	5	C		POLARITY REVERSE ASSEMBLY, SWITCH, BATTERY	✓
1742-67	6	B		ASSEMBLY - SHAFT, IDLER GEAR	
1742-68 ✓	7	C		ASSEMBLY - HOUSING, TRANSDUCER	
1742-74 ✓	8	B		ASSEMBLY - LOCK RING, TRANSDUCER	
1742-78	9	B		ASSEMBLY - BRAKE ARM	
1742-79	10	B		ASSEMBLY - SECTOR GEAR PINION	
1742-80	11	C		ASSEMBLY - CLUTCH HOUSING	
1742-88	12	C		ASSEMBLY - PAWL	
1742-89	13	C		ASSEMBLY - ACTUATOR BAR	
1742-90	14	B		ASSEMBLY - RECORD GEAR & CLUTCH	
1742-91	15	C		ASSEMBLY - OUTPUT SPOOL	
1742-106	16	C		ASSEMBLY - LEFT SIDE PLATE	
1742-113	17	B		(REMOTE TRANSDUCER) ASSEMBLY - ADAPTOR CONTACT	
1742-114 ✓	18	D		ASSEMBLY - REMOTE TRANSDUCER	
1742-124	19	B		ASSEMBLY - COMMUTATOR (POTTED)	
1742-137	20	C		ASSEMBLY - COMMUTATOR (MECHANICAL)	
1742-141	21	B		ASSEMBLY - PAD, LINER (TRANSPORT CASE)	
1742-143	22	C		TC1, TRANSPORT CASE & ACCESSORIES	
1742-145	23	C		ASSEMBLY - MAIN FRAME & BUSHING	
1742-147	24	B		ASSEMBLY - COVER, MICROSWITCH	
U 1742-148 ✓	25	A	2	ASSEMBLY, TRANSDUCER	1742-15; 1742-114

REV.	DATE & BY		REV.	DATE & BY	
P	5-31-63	RE-ED TYPED	U	8-8-63	LT 357
Q	6-12-63	LT 3441	V	8-13-63	LT 3598
R	8-17-63	LT 3454	W	8-18-63	LT 3626
S	6-21-63	LT 3464	X	8-30-63	LT 3687
T	7-28-63	LT 3542	Y	10-17-63	LT 3905

TC-1 TAPE RECORDER - W.O. 790

DATE 5-31-63

PARTS LIST NO.

1742P

PART NO.	COD	SIZE	QTY	TITLE OR DESCRIPTION	REMARKS NEXT ASSEMBLY
1742-2	1	A	1	SHAFT - 37 TOOTH GEAR	
1742-3	1	B	1	GEAR - 37 TOOTH	
1742-4	1	B	1	SPOOL - TAKE UP	
1742-5	3	B	1	SHAFT - GOVERNOR	
1742-6	6	B	1	SHAFT - IDLER	
1742-7	15	C	1	SPOOL - OUTPUT	
1742-8	15	B	1	TAPE SPOOL	
1742-9	1	A	1	TAPE - RECORDING	
1742-10	15	A	1	NEGATOR SPRING RETAINING PIN	
1742-11	6	A	1	25 TOOTH, GEAR - IDLER	
1742-12	14	B	1	RECORD, GEAR	
1742-13	11	B	1	BLANK - OUTPUT GEAR	
1742-14	11	C	1	HOUSING - CLUTCH	
1742-15	1	22	1	TC1 - COMPLETE	
1742-16	11	A	1	PIN - SHEAR, CLUTCH HOUSING STRAP	
1742-17	11	A	1	STOP - CLUTCH HOUSING	
1742-18	11	A	1	SHAFT - CLUTCH	
1742-19	1	A	2	PIN - TAPE LOCK	
1742-20	1	B	1	STOP, GEAR	
1742-21	1	C	1	GEAR - SECTOR	
1742-22	10	B	1	PIN - SECTOR GEAR	
1742-23	10	A	1	PIN - SECTOR GEAR LOCK	
1742-24	1	A	1	SPRING COMPRESSION SECTOR GEAR	
1742-25	2	B	1	LEAFSPRING - CONTACT, BRUSH	
1742-26	2	A	2	CONTACT, BRUSH	
1742-27	2	1 B	1	ASSEMBLY- CONTACT & CONTACT, BRUSH	
1742-28	12	B	1	ARM - EXTENSION, PAWL	

REV.	DATE & BY	REV.	DATE & BY	STAT	
Z	11-4 65 LT	4013			
AA	6-13 64 JR	4317			
AB	2-5 63 JR	4568			
TITLE				TC-1 TAPE RECORDER - W.O. 790	
DRAWN				DATE	5-31-63
SHEET 2				OF	10
				PARTS LIST NO.	1742P

STAT

PART NO.	COD	SIZE	QTY	TITLE OR DESCRIPTION	REMARKS NEXT ASSEMBLY
1742-29	1	A	1	SCREW - CAP TO RACK	
1742-30	1	B	1	RACK	
1742-31	1	C	1	CAP	
1742-32	122	A	1	PIN - ANCHOR, PAWL SPRING	
1742-33	19	A	1	PIN - GUIDE, CAP	
1742-34	1	A	1	SPRING - COMPRESSION, CAP	
1742-35	1	A	2	WASHER, RETAINING BEARING	
1742-36	1	B	1	LEAD SCREW	
1742-37	9	B	1	BRAKE ARM	
1742-38	16	A	1	GUIDE PIN, BRAKE	
1742-39	9	A	1	BRAKE PAD, FRICTION	
1742-40	16	D	1	PLATE - LEFT SIDE	
1742-41	12	B	1	PAWL	
1742-42	1	A	1	STUD - SHOULDER, PAWL	
1742-43	1	D	1	PLATE - RIGHT SIDE	
1742-44	1	C	1	BLOCK - SHIFT, SECTOR GEAR PINION	
1742-45	23	E	1	FRAME - MAIN	
1742-46	1	A	1	SPRING STUD - PAWL, ANCHOR	
1742-47	12	A	1	TENSION SPRING - PAWL	
1742-48	1	A	1	SHAFT - TAKE-UP SPOOL	
1742-49	1	A	2	SHOULDER SCREW, SHIFT BUTTON	
1742-50	1	A	1	SPRING - BALL, SHIFT BUTTON	
1742-51	1	B	1	BUTTON - SHIFT SECTOR GEAR PINION	
1742-52	1	A	1	BALL - DETENT, SHIFT BUTTON	
1742-53	3	C	1	ASSEMBLY - GOVERNOR	
1742-54	1	B	1	SPRING - NEGATOR	
1742-55	23	A	1	BUSHING - RACK	

REV.	DATE & BY	REV.	DATE & BY	TITLE		STAT
				TC-1 TAPE RECORDER - W.O. 790		
				DATE	5-31-63	PARTS LIST NO.
				SHEET 5 OF 10		1742P

PART NO.	CODE	SIZE	QTY	TITLE OR DESCRIPTION	REMARKS NEXT ASSEMBLY	
1742-56	1	A	1	SPACER - BEARING, OUTPUT SPOOL		
1742-57	4	B	1	PRINTED CIRCUIT - CONTACT, BATTERY		
1742-58	1	B	1	CONTACT ASSEMBLY - PRINTED CIRCUIT, BATTERY		
1742-59	5	C	1	PLATE - MOUNTING, POLARITY REVERSE		
1742-60	5	B	1	REVERSE PRINTED CIRCUIT - BLADE, POLARITY		
1742-61	1	C	1	REVERSE ASSEMBLY - SWITCH, BATTERY, POLARITY		
1742-62	1	A	1	STOP RACK		
1742-63	1	A	1	- SMALL DISC - BEARING, SECTOR GEAR SPRING		
1742-64	1	A	1	- LARGE DISC - BEARING, SECTOR GEAR SPRING		
1742-65		B	-	SCHEMATIC	CLASSIFIED	
1742-66	7	B	1	HOUSING SLEEVE - STIFFENER, TRANSDUCER		
1742-67	6	1	B	1	ASSEMBLY - SHAFT, IDLER GEAR	
1742-68	7	1	C	1	ASSEMBLY - HOUSING, TRANSDUCER	
1742-69	8	C	2	RING - LOCKING, TRANSDUCER		
1742-70	-	B	2	WASHER - SUPPORT, TRANSDUCER	1742-15, 1742-114	
1742-71	1	B	1	SPACER - TRANSDUCER		
1742-72	8	A	6	RIVET - TRANSDUCER LOCK RING		
1742-73	-	A	6	SCREW - LOCK, TRANSDUCER	1742-15, 1742-114	
1742-74	8	-	B	2	ASSEMBLY - LOCK RING, TRANSDUCER 1742-18, 1742-114	
1742-75	1	B	1	COVER, RIGHT SIDE PLATE		
1742-77	24	B	1	COVER, MICROSWITCH		
1742-78	9	1	B	1	ASSEMBLY - BRAKE ARM	
1742-79	10	1	B	1	ASSEMBLY - SECTOR GEAR PINION	
1742-80	11	1	C	1	ASSEMBLY - CLUTCH HOUSING	
1742-82	13	D	1	BAR - ACTUATOR, MICROSWITCH		

REV.	DATE & BY	REV.	DATE & BY

TITLE		TC-1 TAPE RECORDER, W.O. 790	
DATE	5-31-63	PARTS LIST NO.	1742P
SHEET 4		OF 10	

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	PART NO.	COD	SIZE	QTY	TITLE OR DESCRIPTION	REMARKS NEXT ASSEMBLY
S	1742-110	1		2	SOLDER LUG, COMMUTATOR	
R						
	1742-112	17	A	1	CONTACT, RIGHT TRANSDUCER	
	1742-113	17	B	1	TRANS-DUCER ASSEMBLY - ADAPTOR CONTACT (REMOTE)	
	1742-114	18	D	1	ASSEMBLY - REMOTE TRANSDUCER	
	1742-115	18	B	1	RETAINER, WIRE, REMOTE TRANSDUCER	
	1742-116	18	C	1	HOUSING - REMOTE TRANSDUCER	
U& Q	1742-117	25		2	TRANSDUCER	
	1742-118	18	B	1	BODY - ADATOR, REMOTE TRANSDUCER	
	1742-119	17	A	1	CONTACT - LEFT TRANSDUCER	
	1742-120	17	B	1	DISC - CONTACT MOUNT, REMOTE TRANSDUCER	
	1742-121	22	C	1	TRANSPORT CASE	
	1742-122	18	D	1	REMOTE TRANSDUCER DUMMY - ELECTRONICS PACKAGE,	
B	1742-123	18	A	1	CABLE - REMOTE TRANSDUCER	
	1742-124	19		1	ASSEMBLY - COMMUTATOR (POTTED)	
A	1742-125		B		TRANSISTOR SPECIFICATIONS	
F	1742-126	20	C	5	SPACER - CODE DISC, COMMUTATOR	
F	1742-127	20	B	1	RING - TOP, COMMUTATOR	
F	1742-128	20	C	1	RING, INSULATOR	
E						
F	1742-130	20	C	1	RING - BASE, COMMUTATOR	
F	1742-131	20	C	1	DISC #1 - CODE, COMMUTATOR	
F	1742-132	20	C	1	DISC #2 - CODE, COMMUTATOR	
F	1742-133	20	C	1	DISC #3 - CODE, COMMUTATOR	
F	1742-134	20	C	1	DISC #4 - CODE, COMMUTATOR	
F	1742-135	20	C	1	DISC #5 - CODE, COMMUTATOR	

L&F

REV.	DATE & BY	REV.	DATE & BY	TITLE		STAT	
				TC-1 TAPE RECORDER, W.O. 790			
				DRAWN	DATE 5-31-63	PARTS LIST NO.	STAT
				SHEET 6 OF 10		1742P	

PART NO.		COD	SIZE	QTY	TITLE OR DESCRIPTION	REMARKS NEXT ASSEMBLY
P	1742-137	20 19	C		ASSEMBLY - COMMUTATOR, (MECHANICAL)	
Q&B	1742-138	-	B	2	PAD - LINER, SOLID (TRANSPORT CASE)	1742-143, 1742-141
B	1742-139	21	B	1	PAD - LINER, MIDDLE (TRANSPORT CASE)	
B&N	1742-140	21	B	1	PAD - LINER, TOP (TRANSPORT CASE)	
B	1742-141	22	B	1	ASSEMBLY - PAD, LINER (TRANSPORT CASE)	
U Y, L&M	1742-142	1725	A	4	SPACER, TRANSDUCER	
B	1742-143	-	C	1	TC-1, TRANSPORT CASE & ACCESSORIES	
A						
B	1742-145	23 1	C	1	ASSEMBLY - MAIN FRAME & BUSHING	
Q&L	1742-146	-	A	5	BATTERY	1742-13, 142-143
L	1742-147	24 1	B		ASSEMBLY - COVER, MICROSWITCH	
L&N						
	1742-149			AS REQ	SHIMS	1742-53
M	1742-150	3	A	2	PIN - LINK, GOVERNOR (LONG)	
M	1742-151	3	A	2	PIN - LINK, GOVERNOR (SHORT)	
M	1742-152	3	C	1	DISC - CLUTCH, GOVERNOR	
M	1742-153	3	A	2	LINK - GOVERNOR	
H	1742-154	3	C	2	FLY WEIGHT - GOVERNOR	
M	1742-155	3	A	1	RING - GOVERNOR	
M	1742-156	3	A	1	SPRING - COMPRESSION, GOVERNOR	
M	1742-157	3	B	1	HUG - PIVOT, GOVERNOR	
N	1742-158	1	A	2	SPRING - DETENT CAP	
M	1742-159	1	A	1	WASHER - STOP GEAR, .100x.180x.025 THK	
N	1742-160-1	1	A	AS REQ	SHIM - DETENT CAP	
N	1742-160-2	1	A	"	" "	
N	1742-160-3	1	A	"	" "	
M	1742-161	1	A	1	SCREW - SWITCH POLARITY	
REV.		DATE BY	REV.		DATE BY	STAT
TC-1 TAPE RECORDER, W.O. 790						STAT
DRAWN		DATE		PARTS LIST NO.		
		5-31-63				
SHEET		7		OF 10		1742P

PART NO.		COD	SIZ	QT	TITLE OR DESCRIPTION	REMARKS
R						
M	1360-5-17	1	A	1	PIN, SPIROL	
Q	1360-5-18	-	A	3	SPIROL PIN 1/32 DIA.x.188	1742.53, 1742-61
Y	1360-6-14	18	A	2	SCREW, FL.HD. 1-72 x .188	
	1360-6-46	1	A	3	SCREW, FL.HD. 0-80x.140	
	1360-6-47	1	A	2	SCREW, FL.HD. 0-80x.093	
	1360-8-2	1	A	2	SCREW, TRUSS HEAD 0-80 x 3/32 LG	
N	1360-8-4	1	A	3	SCREW - TRUSS HD., 0-80x1/4	
	1360-8-6	1	A	5	SCREW, TRUSS HEAD 1-72 x 3/16 LG	
	1360-9-11	1	B	1	SCREW, BD.HD. 2-56 x .312	
Y	1360-13-13	17	A	4	RIVET .062 DIA. X .062 LG.	
	1360-13-29	13	A	2	EYELET, CIRCON CR22	
H	1360-13-31	4	A	1	FUNNELET CIRCON CR33F	
Q	1360-14-26	20	A	3	RIVET, TUBULAR, OVAL HD. .062 DIA.x9/16 LG.	
	1360-18-20	1	A	1	MICROSWITCH	
	1360-27-16	15	A	2	SET SCREW 1-72x.093	
N	1360038-5	1	A	2	BALL	
L	1360-40-3	1	C	1	SCREW, FIL.HD. 0-80x.375	
L	1360-40-16	1	C	2	SCREW, FIL.HD. 1-72x.250	
	1360-40-18	1	C	3	SCREW, FIL.HD. 2-56x.250	
,L	1360-40-20	1	C	5	SCREW, FIL.HD. 0-80x.188	
	1360-40-31	1	C	2	SCREW, FIL.HD.000-120x.125	
	1360-40-37	1	C	1	SCREW, FIL.HD. 0-80x.093	
	1360-40-38	1	C	2	SCREW, FIL.HD. 2-56x.156	
B	1360-40-40	1	C	6	SCREW, FIL.HD. 1-72x.156	
	1360-40-41	1	C	3	SCREW, FIL.HD. 0-80x.125	
L	1360-40-47	1	C	2	SCREW, FIL.HD. 1-72x.750	
REV.		DATE	REV.		DATE	STA
TC-1 TAPE RECORDER - W.O. 790						STA
DRAWN		DATE		PARTS LIST NO.		
5-31-63		1742P				
SHEET 9		OF 10				

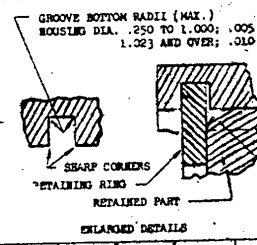
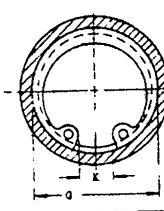
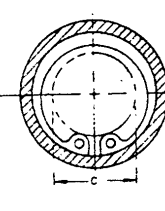
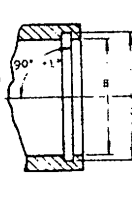
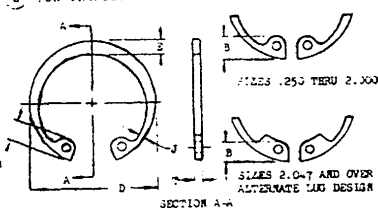
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DD FORM 672-1 (Continued)

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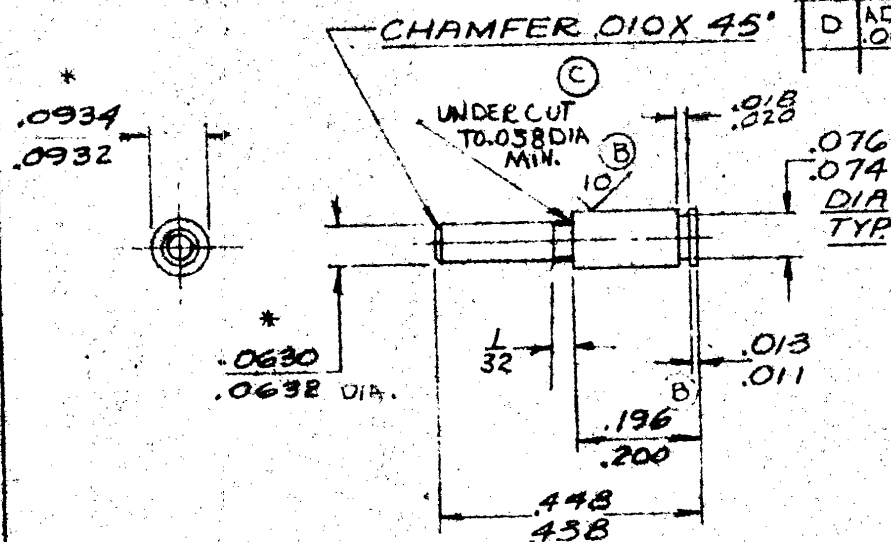
SHEET 1 OF 1

FOR CHANGES SEE SHEETS 1 THROUGH 7



H HOUSING DIAMETER		J FREE DIAMETER		K		L		M		N		O		P		Q		R		S		T		U		V		W		X		Y		Z		AA		AB		AC		AD		AE		AF		AG		AH		AI		AJ		AK		AL		AM		AN		AO		AP		AQ		AR		AS		AT		AU		AV		AW		AX		AY		AZ		BA		BB		BC		BD		BE		BF		BG		BH		BI		BJ		BK		BL		BM		BN		BO		BP		BQ		BR		BS		BT		BU		BV		BW		BX		BY		BZ		CA		CB		CC		CD		CE		CF		CG		CH		CI		CJ		CK		CL		CM		CN		CO		CP		CQ		CR		CS		CT		CU		CV		CW		CX		CY		CZ		DA		DB		DC		DD		DE		DF		DG		DH		DI		DJ		DK		DL		DM		DN		DO		DP		DQ		DR		DS		DT		DU		DV		DW		DX		DY		DZ		EA		EB		EC		ED		EE		EF		EG		EH		EI		EJ		EK		EL		EM		EN		EO		EP		EQ		ER		ES		ET		EU		EV		EW		EX		EY		EZ		FA		FB		FC		FD		FE		FF		FG		FH		FI		FJ		FK		FL		FM		FN		FO		FP		FQ		FR		FS		FT		FU		FV		FW		FX		FY		FZ		GA		GB		GC		GD		GE		GF		GG		GH		GI		GJ		GK		GL		GM		GN		GO		GP		GQ		GR		GS		GT		GU		GV		GW		GX		GY		GZ		HA		HB		HC		HD		HE		HF		HG		HH		HI		HJ		HK		HL		HM		HN		HO		HP		HQ		HR		HS		HT		HU		HV		HW		HX		HY		HZ		IA		IB		IC		ID		IE		IF		IG		IH		II		IJ		IK		IL		IM		IN		IO		IP		IQ		IR		IS		IT		IU		IV		IW		IX		IY		IZ		JA		JB		JC		JD		JE		JF		JG		JH		JI		JJ		JK		JL		JM		JN		JO		JP		JQ		JR		JS		JT		JU		JV		JW		JX		JY		JZ		KA		KB		KC		KD		KE		KF		KG		KH		KI		KJ		KK		KL		KM		KN		KO		KP		KQ		KR		KS		KT		KU		KV		KW		KX		KY		KZ		LA		LB		LC		LD		LE		LF		LG		LH		LI		LJ		LK		LM		LN		LO		LP		LQ		LR		LS		LT		LU		LV		LW		LX		LY		LZ		MA		MB		MC		MD		ME		MF		MG		MH		MI		MJ		MK		ML		MM		MN		MO		MP		MQ		MR		MS		MT		MU		MV		MW		MX		MY		MZ		NA		NB		NC		ND		NE		NF		NG		NH		NI		NJ		NK		NL		NM		NN		NO		NP		NQ		NR		NS		NT		NU		NV		NW		NX		NY		NZ		OA		OB		OC		OD		OE		OF		OG		OH		OI		OJ		OK		OL		OM		ON		OO		OP		OQ		OR		OS		OT		OU		OV		OW		OX		OY		OZ		PA		PB		PC		PD		PE		PF		PG		PH		PI		PJ		PK		PL		PM		PN		PO		PP		PQ		PR		PS		PT		PU		PV		PW		PX		PY		PZ		QA		QB		QC		QD		QE		QF		QG		QH		QI		QJ		QK		QL		QM		QN		QO		QP		QQ		QR		QS		QT		QU		QV		QW		QX		QY		QZ		RA		RB		RC		RD		RE		RF		RG		RH		RI		RJ		RK		RL		RM		RN		RO		RP		RQ		RR		RS		RT		RU		RV		RW		RX		RY		RZ		SA		SB		SC		SD		SE		SF		SG		SH		SI		SJ		SK		SL		SM		SN		SO		SP		SQ		SR		SS		ST		SU		SV		SW		SX		SY		SZ		TA		TB		TC		TD		TE		TF		TG		TH		TI		TJ		TK		TL		TM		TN		TO		TP		TQ		TR		TS		TT		TU		TV		TW		TX		TY		TZ		UA		UB		UC		UD		UE		UF		UG		UH		UI		UJ		UK		UL		UM		UN		UO		UP		UQ		UR		US		UT		UU		UV		UW		UX		UY		UZ		VA		VB		VC		VD		VE		VF		VG		VH		VI		VJ		VK		VL		VM		VN		VO		VP		VQ		VR		VS		VT		VU		VV		VW		VX		VY		VZ		WA		WB		WC		WD		WE		WF		WG		WH		WI		WJ		WK		WL		WM		WN		WO		WP		WQ		WR		WS		WT		WU		WV		WW		WX		WY		WZ		XA		XB		XC		XD		XE		XF		XG		XH		XI		XJ		XK		XL		XM		XN		XO		XP		XQ		XR		XS		XT		XU		XV		XW		XX		XY		XZ		YA		YB		YC		YD		YE		YF		YG		YH		YI		YJ		YK		YL		YM		YN		YO		YP		YQ		YR		YS		YT		YU		YV		YW		YX		YY		YZ		ZA		ZB		ZC		ZD		ZE		ZF		ZG		ZH		ZI		ZJ		ZK		ZL		ZM		ZN		ZO		ZP		ZQ		ZR		ZS		ZT		ZU		ZV		ZW		ZX		ZY		ZZ	
INCH	MM	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

REVISIONS		DATE	BY
SYN.	DESCRIPTION		
A	PLAIN PRECISION 12" LENGTHS NOTE ADDED	0-3-62	D
B	✓ WAS ✓; ARROW ON $\frac{1}{32}$ WAS TO INNER EDGE OF SHOULDER EC 83	1-6-62	
C	.058 DIA. MIN. UNDER CUT ADDED EC 2915	11-8-62	
D	ADDED NOTE 3, .0630-.0632 WAS .0630-.0635, EC 4523	3-16-64	



NOTE:

- 1) DIA'S MARKED * TO BE CONCENTRIC WITHIN $\pm .0015$
- 2) .076 DIA MUST BE .074 CONCENTRIC WITH $\pm .0015$ DIA WITHIN $\pm .0015$
- 3) REMOVE ALL BURRS & BREAK ALL SHARP EDGES & CORNERS .005 MAX.

NOTE:

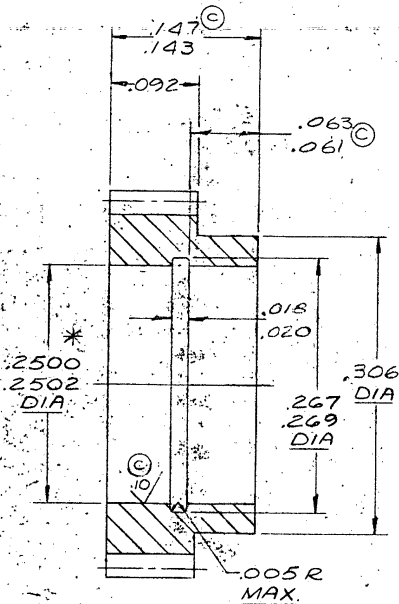
MAKE FROM "PIC" SHAFTING

- (A) PLAIN PRECISION 12" LENGTHS FOR LIMITED PRODUCTION ONLY

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO. REQ'D	MATERIAL	FINISH	DATE	SCALE	REV	STAT
DECIMAL DIM	$\pm .005$	1742-L1	1	303 STAINLESS STEEL	CLEAR PASSIVATE	9-27-62	4:1		
FRACTIONAL DIM	$\pm 1/64$			MIL-S-7720	MIL-F-14078	1 FEB 63			
ANGULAR DIM	$\pm 5'$			CONR 3035	FINISH E300				
ALL DIMENSIONS GIVEN IN INCHES									

PRODUCTION DRAWING CONTROL



GEAR DATA

PIC #G27-37 - (USE FOR LIMITED PRODUCTION ONLY)

37 TEETH

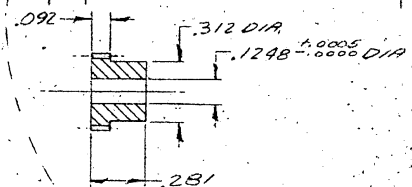
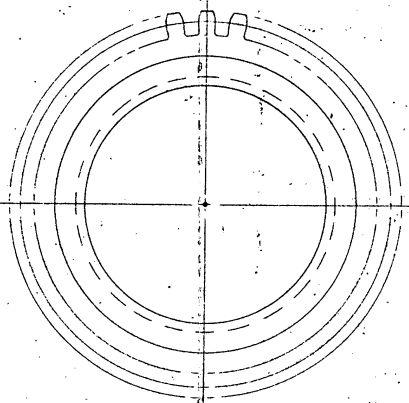
96 PITCH

406-404 O.D. *

3854-3844 P.D.

20° PA

PREC. 1



BLANK GEAR

AS PURCHASED FROM
PIC SCALE: 2:1

NOTES:

- (1) 2500 DIA BORE CONCENTRIC WITH DIAS. MARKED * WITHIN $\pm .0005$
- (2) WHEN "PIC" GEAR IS USED IT MUST BE ALTERED TO THIS DESIGN:
 - (a) PUT GEAR ON ARBOR, TRUE .312 DIA. HUB TO .306 DIA. CONCENTRIC WITH BORE WITHIN $\pm .0005$
 - (b) THEN HOLD GEAR BY .306 DIA. & BORE HOLE TO .2500 DIA.
- (3) 267 DIA MUST BE CONCENTRIC WITH 250 DIA. WITHIN $\pm .00075$
- (4) REMOVE ALL BURRS AND BREAK ALL SHARP EDGES AND CORNERS .005 MAX.

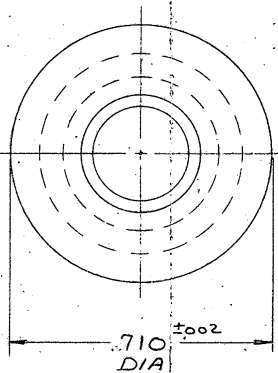
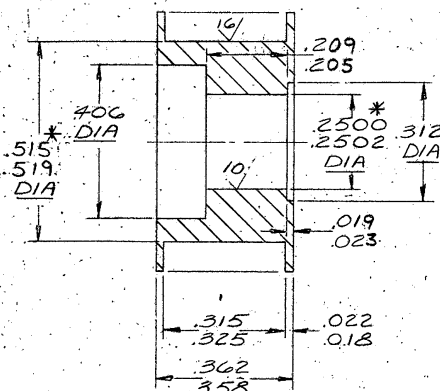
PRINT ISSUED: APR 30 1964 STAT

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1742-L1	1
FRACTIONAL DIM. $\pm 1/64$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

303 STAINLESS ST. CLEAR PASSIVATE
MIL-S-7720-2
COMP 3035
FINISH E300

W.O.	NO. REQ'D.	DATE	BY	DATE	BY	DATE	BY
1742-L1	1	1 FEB 63	B	1742-3	B	1742-3	B
1742-3	1	1 FEB 63	B	1742-3	B	1742-3	B



NOTES

1. CONCENTRICITY BETWEEN DIAMETERS MARKED * MUST BE WITHIN .005
2. BREAK ALL SHARP EDGES AND CORNERS .005 MAX.

REVISIONS		DWG. NO.	REV.
		1742-4	C
SYN.	DESCRIPTION	BY	DATE
A	REVISED BY PROD ENG. PRIOR TO RELEASE		11/8/63
B	710 DIA WAS .688 DIA EC3364 .515-.519 DIA WAS .533-.529 DIA		16 MAY 63
C	ADDED NOTES 1 & 2 EC4525		3-16-64

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MR-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ.
DECIMAL DIM. $\pm .005$	1742-L1	1
FRACTIONAL DIM. $\pm 1/64$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL	FINISH	DATE	DWG. NO.	REV.
24 ST ALUMINUM	CHROMIUM ACID ANODIZED	6-25-62	1742-4	C
20-A-248 COND. T4	MIL-A-8625A TYPE I	1 FEB 63		
		10-8-63		

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SPRINT TAKE-UP



(2) 3 DIA'S MARKED * MUST BE CONCENTRIC WITHIN $\pm .0005$.

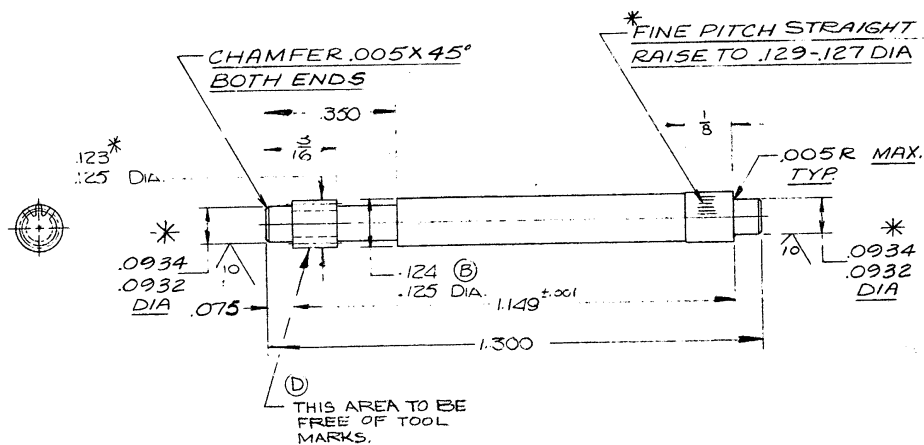
(3) REMOVE ALL BURRS & BREAK ALL SHARP EDGES AND CORNERS .005 MAX.

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LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MAP-2000

MATERIAL 303 STAINLESS STL SPEC.	FINISH CLEAR PASSIVATE
MIL-3-7720 COMP 3035	MIL-F-1407 FINISH E300

W.O.		TITLE		SHAFT GOVERNOR		STAT	
NO. REG'D.		DATE		SCALE		STAT	
DRAWN		DATE		DWG. NO.		STAT	
1-HM		6-25-62		4-1		STAT	
DATE		DWG. NO.		STAT		STAT	
1-FEB-63		B		1742-5		STAT	
DATE		DWG. NO.		STAT		STAT	
1-8-62		B		1742-5		STAT	



NOTE:

- (1) CHAMFER MAY BE USED TO ENDS TO CHAMFER IS NECESSARY
- (2) A DIA. MARKED * MUST BE LOCATED AND WITHIN .0005"
- (3) REMOVE ALL BURS AND BREAK ALL SHARP EDGES AND CORNERS .005 MAX.

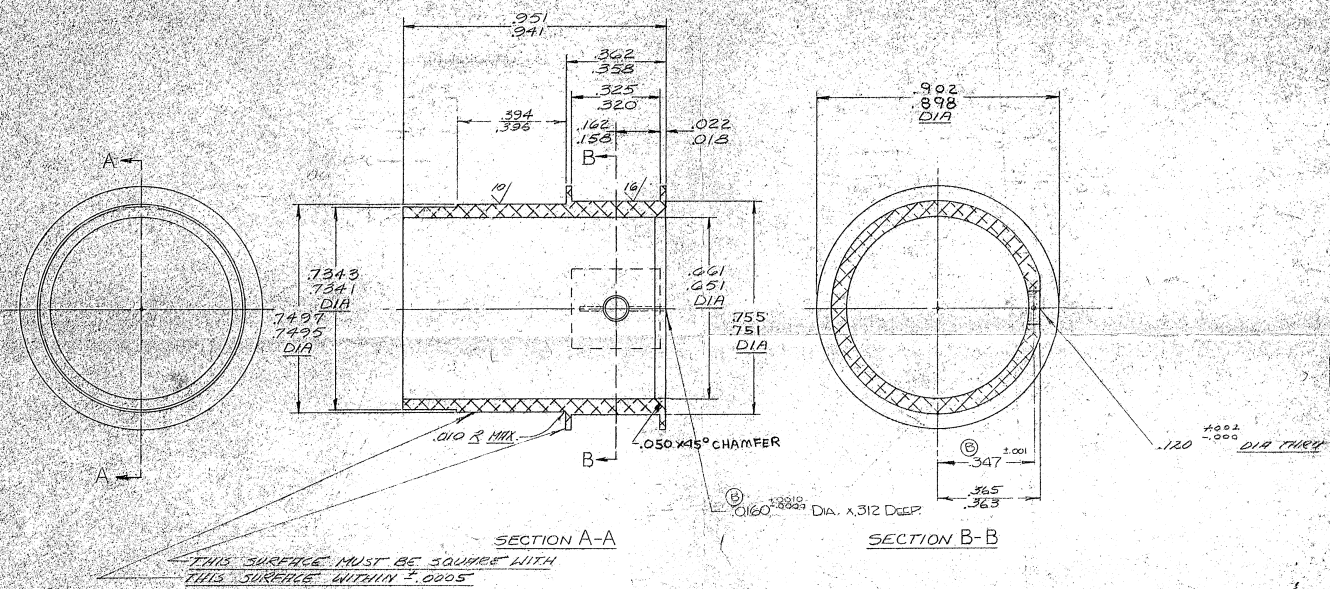
GEAR DATA
PIC #FA-1 (FOR LIMITED PRODUCTION ONLY)
10 TEETH
96 PITCH
1042-1032 P.D.
125-123 O.D.
P.A. 20°
PREC. #1

LIMITS OF ACCEPTABLE WORKMANSHIP	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	
DECIMAL DIM	± .005
FRACTIONAL DIM	± .005
ANGULAR DIM	± .01

PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000				W O		TITLE		STA	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY		NO REQ'D.		1		SHAFT-IDLER	
DECIMAL DIM	± .005	1742-67	1	MATERIAL 303 STAINLESS STEEL		FINISH CLEAR PASSIVATE		DATE 6-27-62	
FRACTIONAL DIM	± .1-64			SPEC MIL-S-7720 COMP. 303S		FINISH MIL-F-14072 FINISH E300		SCALE 4:1	
ANGULAR DIM	± 5°			SPEC		DRAWN HM CHECKER		DATE 1 FEB 63	
ALL DIMENSIONS GIVEN IN INCHES				DATE 10-2-62		DWG. NO. B		DWG. NO. 1742-6	
								STAT SI	

REVISIONS		DATE	BY	APP'D
SYM.	DESCRIPTION			
B	CHANGED FROM 10.000 TO 10.000	1/14/63		
C	902 DIA. WAS 880-870 DIA.	1/14/63		
	755-751 DIA. WAS 770-765 DIA.			



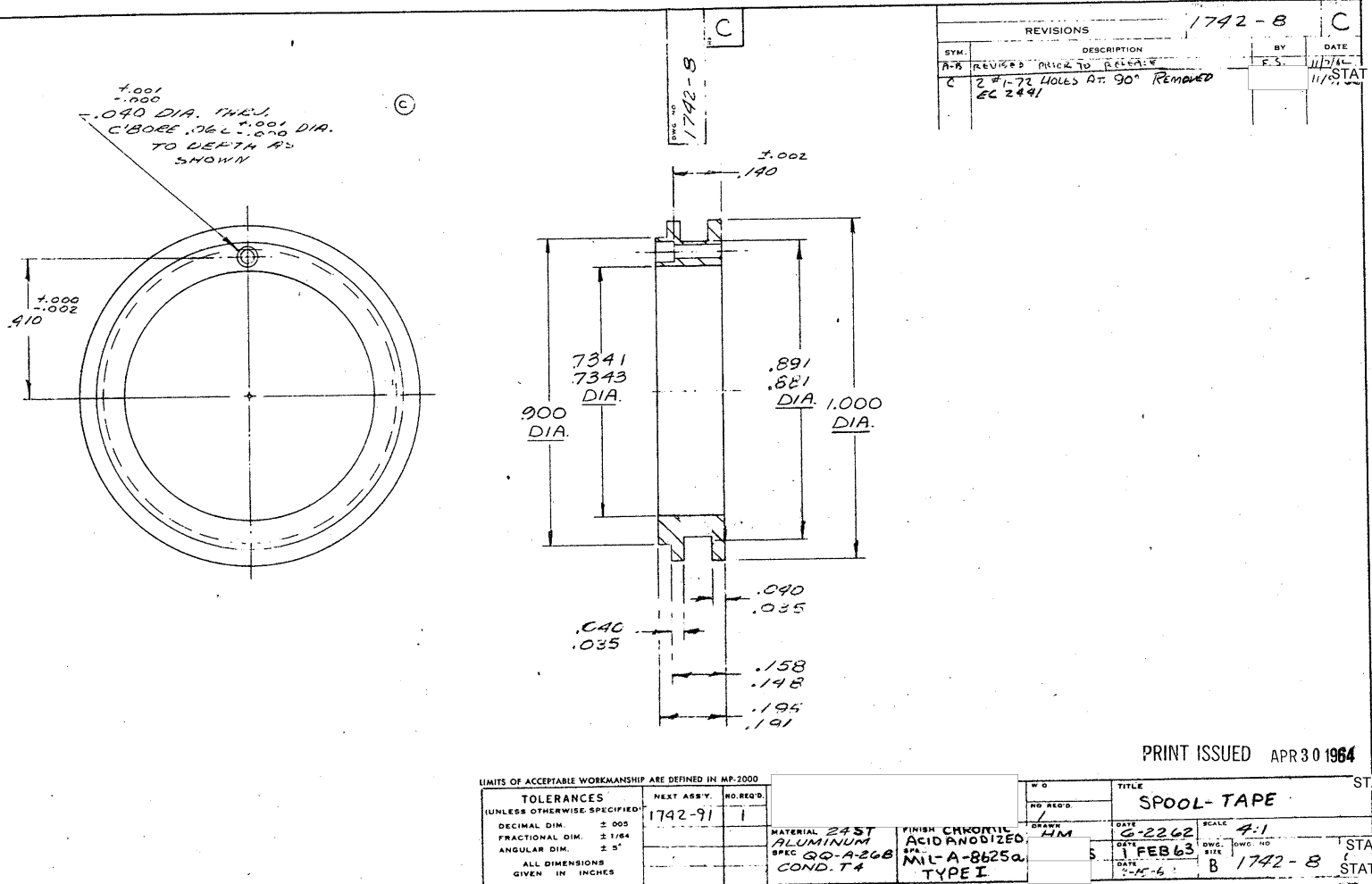
PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MIL-STD-113	
TOLERANCES	UNLESS OTHERWISE SPECIFIED
DECIMAL DIM.	± .002
FRACTIONAL DIM.	± .004
ANGULAR DIM.	± .5°
ALL DIMENSIONS	UNLESS OTHERWISE SPECIFIED
UNIT	INCHES

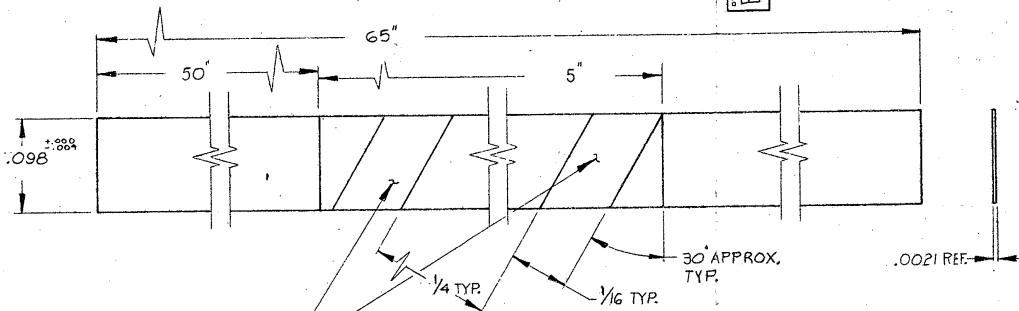
DATE	REV.	DESCRIPTION
1742-7	1	
ALUMINUM		
20-A-208		
COND. TA		
ANODIZED		
MIL-A-86250		
TYPE I		

DATE	REV.	DESCRIPTION
2/20/62	1	
1 FEB 63		
186-63		
1742-7		
C		

PRODUCTION DRAWING CONTROL



REVISIONS				DWG. NO.	REV.
				B1742-9	C
SYM.	DESCRIPTION	BY	DATE		
A	REDRAWN & REDESIGNED. WAS "A" SIZE. PER E.C. 2-29-64		5-24-64	STAT	
B	65" WAS 60", NOTES REV. #128 TO 1220 DARK GREEN TO DARK BROWN-EC4524		3-16-64		
C	IN NOTE 1, 428 WAS 1220 PER EC4596		4-3-64		



REMOVE OXIDE FROM TAPE.
COAT EXPOSED AREA WITH
RED MARKING INK. TYPICAL OVER
5" LENGTH.
USE ANY INK WITH CONSISTENCY & WEAR
QUALITIES EQUIV. TO MAGIC MARKER
MADE BY SPEEDRY PRODUCTS, INC.
RICHMOND HILL 18, N.Y.

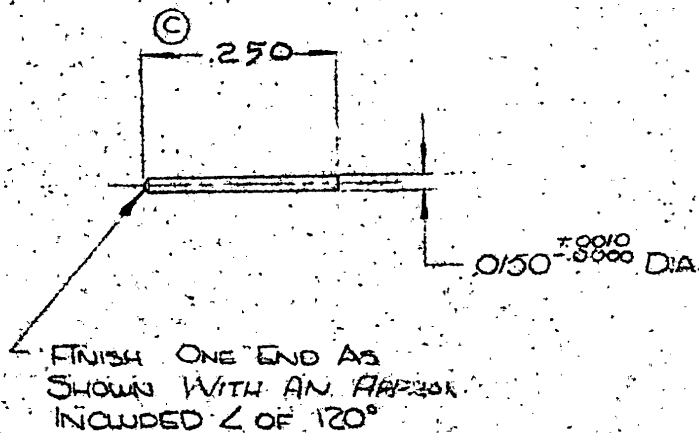
NOTES -
1. MAKE FROM "SCOTCH" BRAND MAGNETIC TAPE #428
2. COLOR & MAT'L - DARK BROWN, POLYESTER FILM.

PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	W.O.	TITLE	STAT
DECIMAL DIM.	± .005	1742-15	1			NO REQ'D.	TAPE - RECORDING	
FRACTIONAL DIM.	± 1/64						DATE 5-24-63	SCALE 10:1
ANGULAR DIM.	± 5'						DATE 28 MAY 63	REV.
ALL DIMENSIONS GIVEN IN INCHES				SPEC. SEE NOTE	SPEC.		DWG. NO. B1742-9	STAT
							DATE 5-24-63	REV.

REVISIONS				1742-10	C
SYM.	DESCRIPTION	BY	DATE		
B	THIS WAS "PIN-NEGATOR LOCK" BEF. 20 DESIGN REMAINS PER EC 2550		12-3-62	STAT	
C	REV. 300 TO .250 PER EC 3913		10-21-62		

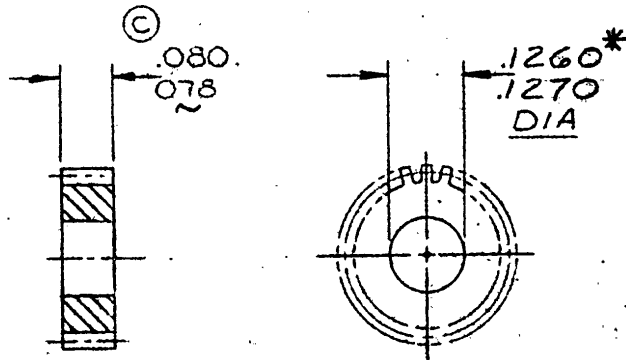


LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	M.O.		TITLE		STAT
DECIMAL DIM. ± .005		1742-91	1	NO REQ'D.		PIN - RETAINING, NEGATOR SPRING		STAT
FRACTIONAL DIM. ± 1/64						DATE	SCALE	
ANGULAR DIM. ± 5°						12-3-62	4:1	
ALL DIMENSIONS GIVEN IN INCHES						DATE	DWG. NO.	REV.
						1 FEB 63	1742-10	C
						DATE	SIZE	STAT
							A	

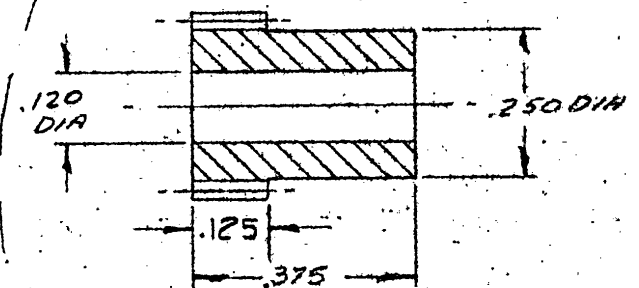
NOTE

1. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES AND CORNERS .005 MAX.
2. DIAMETERS MARKED * MUST BE CONCENTRIC WITHIN .0005



GEAR DATA "A"
U.S. GEAR #9625H 20-120 (FOR LIMITED
25 TEETH
96 PITCH
.2812-.2792 OD*
.2609-.2594 P.D.
P.A. 20°
PREC. #1

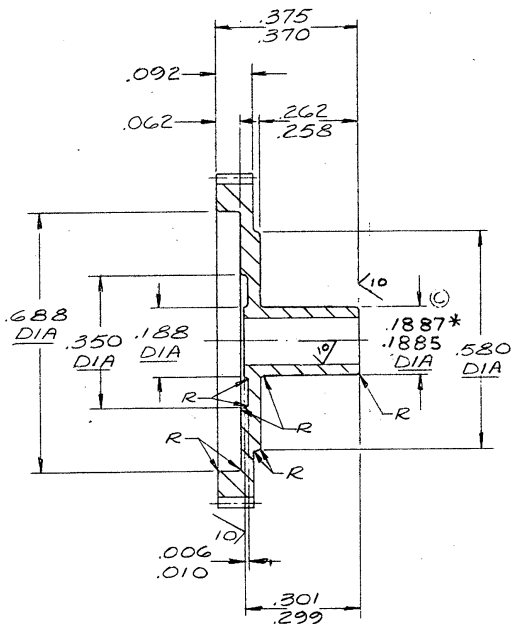
REVISIONS		DWG. NO.	REV
		1742-11	E
SYM.	DESCRIPTION	BY	DATE
A	25 TEETH WAS 27 TEETH		11A0 STAT
B	REVISED PRIOR TO RELEASE		10/62
C	FACE WIDTH WAS .092 PER EC 2569		12-4-62
D	INSERTED REV B PER EC 2581		12-12-62
E	ADDED NOTES 1 AND 2. 1260-.1270. WAS .1248-.1253, EC 4533		3-16-64



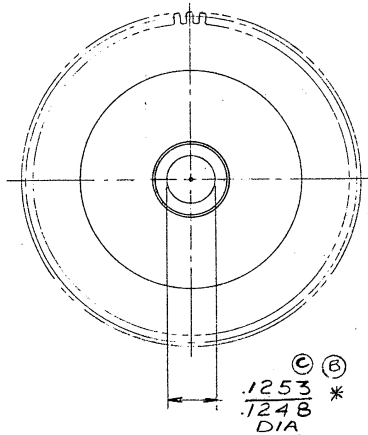
BLANK GEAR
AS PURCHASED
FROM "U.S. GEAR"

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO. REQ'D.	W.O.		TITLE		DATE		SCALE		REV	
DECIMAL DIM.	± .005	1742-67	1	NO. REQ'D.	1	GEAR-IDLER,		DATE	6-27-62	4:1		STAT	
FRACTIONAL DIM.	± 1/64			DRAWN	HM	25 TOOTH		DATE	1 FEB 63	DWG. NO.	1742-11	STAT	
ANGULAR DIM	± 5°							DATE	10-6-62	DWG. NO.	A	STAT	
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL 303 STAINLESS STEEL		FINISH CLEAR PASSIVATE		SPEC. MIL-S-7720 COMP 303S		SPEC. MIL-F-14072 FINISH E300		CONTROL	



GEAR DATA
 83 TEETH
 96 PITCH
 .8645-.8635 P.D.
 .8854-.8834 O.D.
 20° P.A.
 PRECISION #1



- NOTE
1. .005-.010 R WHERE INDICATED
 2. DIAM MARKED * MUST BE CONCENTRIC WITH O.D. OF GEAR WITHIN ±.0005
 3. REMOVE ALL BURS AND BREAK ALL SHARP EDGES AND CORNERS .005 MAX.

REVISIONS		DATE	REV.
SYM.	DESCRIPTION	DATE	REV.
A	REVISION FROM PREVIOUS	11/17/61	STAT
B	.120 ±.001 DIA. WAS .1253 DIA. REM. 2 RAKES; EC 2412	11/8/61	
C	.1253-.1248 DIA. WAS .120 ±.001 DIA. REM. 2 RAKES; EC 2412	16 MAY 63	
D	ADDED NOTE 3 - EC 4550	3-18-64	

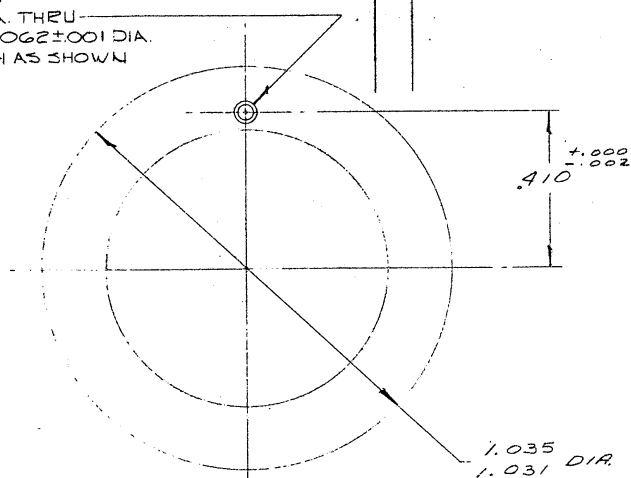
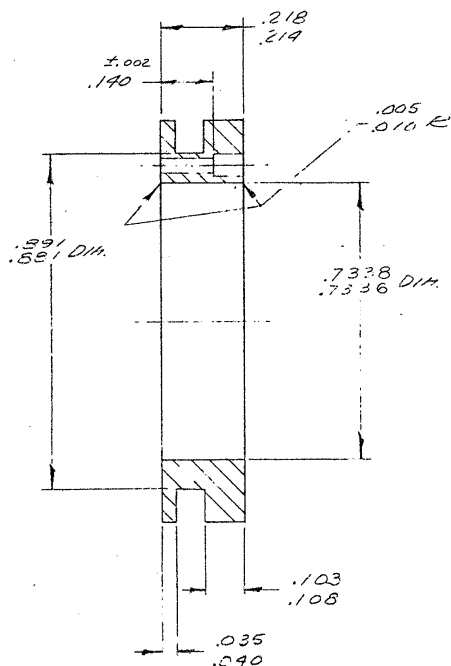
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. ±.003	1742-90	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5°		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL 316
 STAINLESS STEEL
 SPEC QQ-S-7630
 CLASS 6
 TYPE A

FINISH CLEAR
 PASSIVATE
 MIL-F-14072
 FINISH E300

PRINT ISSUED		DATE	SCALE	1 ST STAT
GEAR - RECORD		22-62	4:1	STAT
DATE	DWG. NO.	DATE	DWG. NO.	1 ST STAT
1 FEB 63	B	1742-12	D	STAT



REVISIONS		BY	DATE
SYN.	DESCRIPTION	BY	DATE
A-B	Revised PRIOR TO REVISION	R.S.	4-30-65
C	MAT'L WAS 24 ST ALUM. QQ-A-268 COND. T4; FINISH WAS CHROMIC ACID ANODIZE MIL-A-8625a TYPE I. PER E.C. 3326		3-16-64
D	ADDED NOTE 1, 7336-7338 WAS 7333-7338, EC4536		

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY	NO. REQ'D
DECIMAL DIM. ± .005	1742-80	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5°		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL
416 STAINLESS
STEEL
QQ-S-765a
CLASS 6 TYPE A

CLEAR PASSIVATE
MIL-F-14072
FINISH E 300

PRINT ISSUED APR 30 1964		TITLE	SCALE	DATE	BY	DATE	REV.	STAT
		BLANK-OUTPUT GEAR	2:1	10/9/62	S. I. FEB 63	1742-13	B	STAT



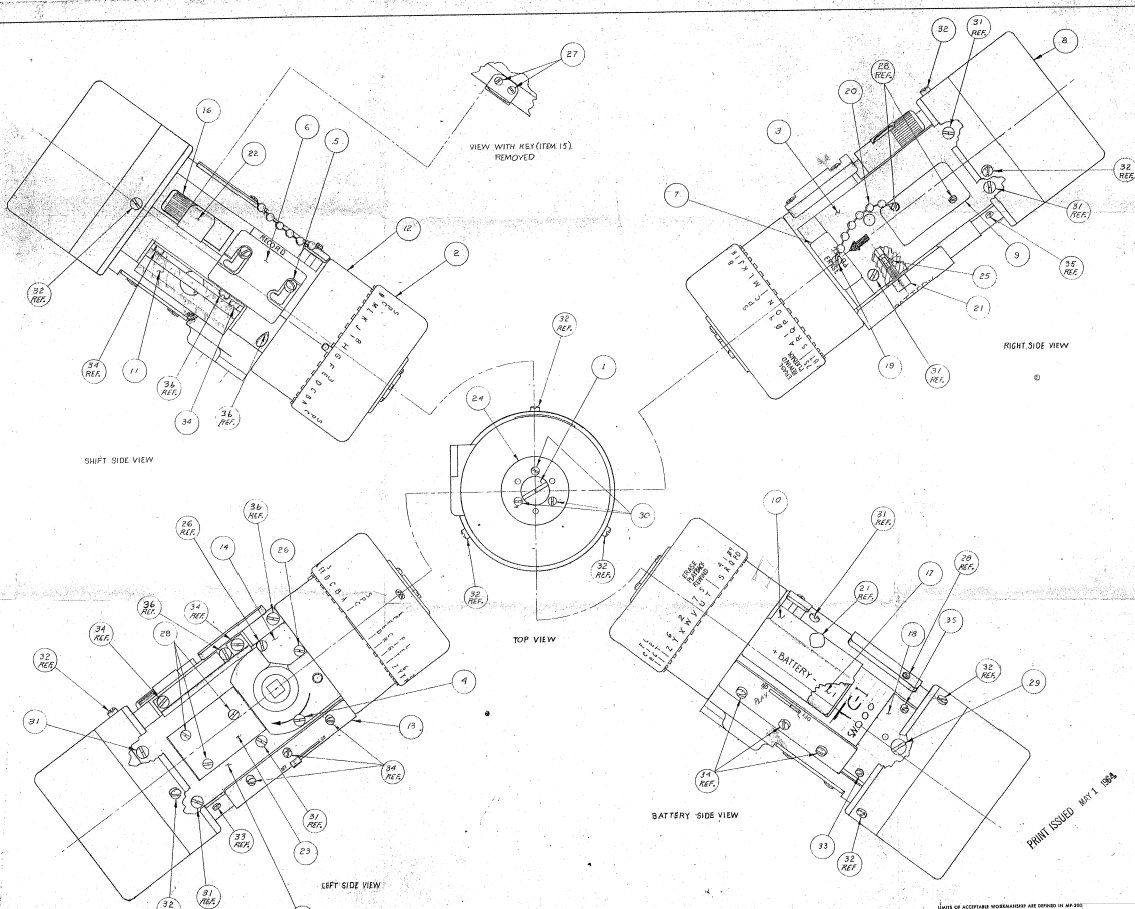
1

DWG. NO.
1742-14

REV.
F

PRINT ISSUED APR 30 1964

PRODUCTION DRAWING CONTROL DC

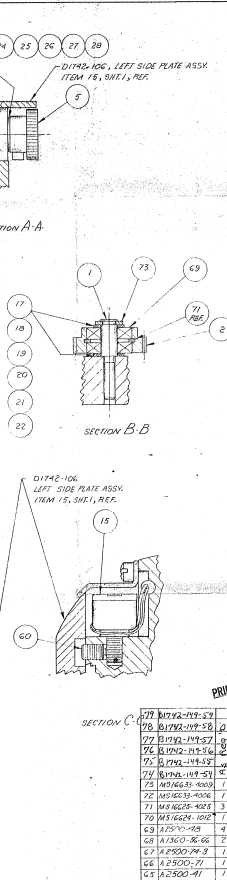


REVISIONS			
REV.	DESCRIPTION	DATE	BY
A	1. REVISIONS TO DRAWING	11/1/64	W. J. H.
B	2. REVISIONS TO DRAWING	11/1/64	W. J. H.
C	3. REVISIONS TO DRAWING	11/1/64	W. J. H.
D	4. REVISIONS TO DRAWING	11/1/64	W. J. H.

1	SCREW-FL. HD. 4-32 X .250
2	SCREW-FL. HD. 4-32 X .250
3	SCREW-FL. HD. 4-32 X .250
4	SCREW-FL. HD. 4-32 X .250
5	SCREW-FL. HD. 4-32 X .250
6	SCREW-FL. HD. 4-32 X .250
7	SCREW-FL. HD. 4-32 X .250
8	SCREW-FL. HD. 4-32 X .250
9	SCREW-FL. HD. 4-32 X .250
10	SCREW-FL. HD. 4-32 X .250
11	SCREW-FL. HD. 4-32 X .250
12	SCREW-FL. HD. 4-32 X .250
13	SCREW-FL. HD. 4-32 X .250
14	SCREW-FL. HD. 4-32 X .250
15	SCREW-FL. HD. 4-32 X .250
16	SCREW-FL. HD. 4-32 X .250
17	SCREW-FL. HD. 4-32 X .250
18	SCREW-FL. HD. 4-32 X .250
19	SCREW-FL. HD. 4-32 X .250
20	SCREW-FL. HD. 4-32 X .250
21	SCREW-FL. HD. 4-32 X .250
22	SCREW-FL. HD. 4-32 X .250
23	SCREW-FL. HD. 4-32 X .250
24	SCREW-FL. HD. 4-32 X .250
25	SCREW-FL. HD. 4-32 X .250
26	SCREW-FL. HD. 4-32 X .250
27	SCREW-FL. HD. 4-32 X .250
28	SCREW-FL. HD. 4-32 X .250
29	SCREW-FL. HD. 4-32 X .250
30	SCREW-FL. HD. 4-32 X .250
31	SCREW-FL. HD. 4-32 X .250
32	SCREW-FL. HD. 4-32 X .250
33	SCREW-FL. HD. 4-32 X .250
34	SCREW-FL. HD. 4-32 X .250
35	SCREW-FL. HD. 4-32 X .250
36	SCREW-FL. HD. 4-32 X .250

1	COIL SPRING
2	COIL SPRING
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6	COIL SPRING
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35	COIL SPRING
36	COIL SPRING

TOLERANCES	UNLESS OTHERWISE SPECIFIED
FRACTIONS	± .005
DECIMALS	± .001
ANGLES	± .01
THREADS	PER ANSI B1.1
WELDS	PER AWS A5.1



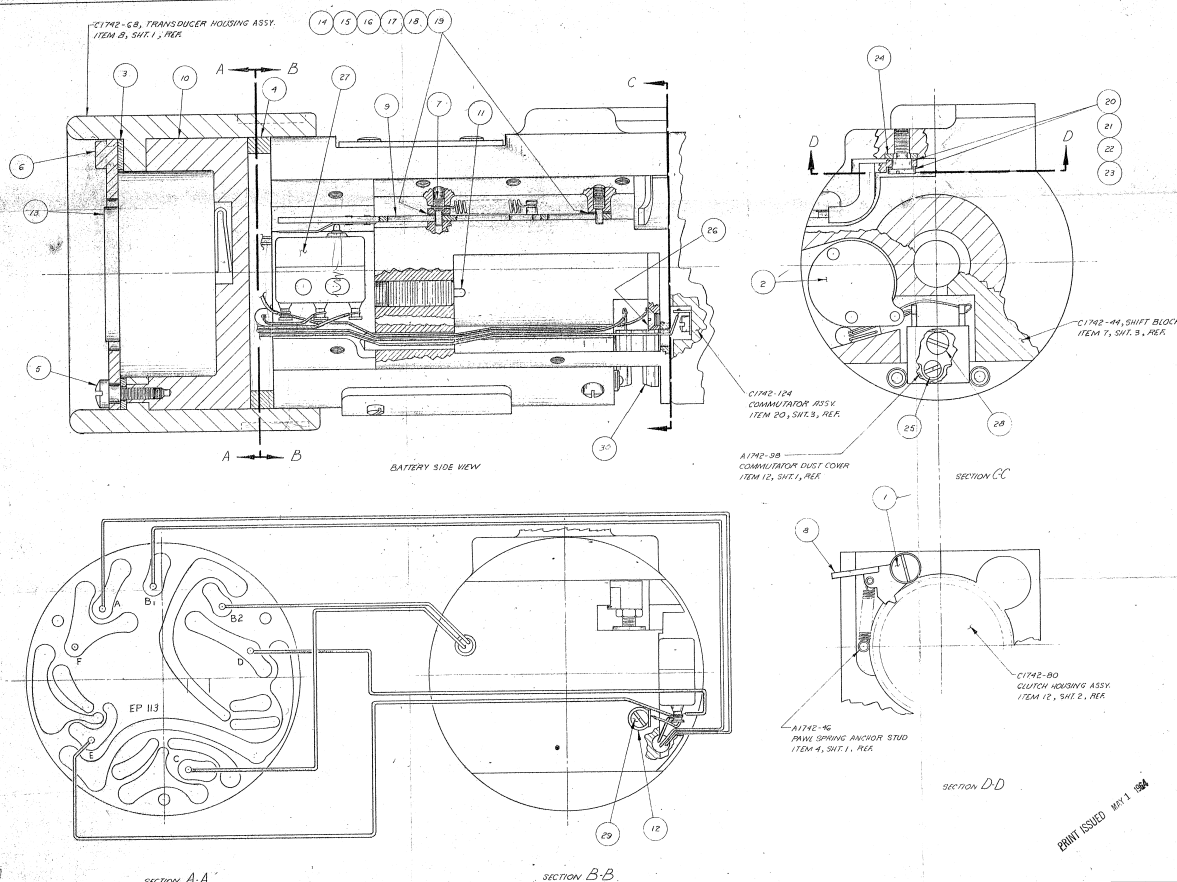
REVISED		DATE	BY
DESCRIPTION		DATE	BY
61	17-000-37	REWORKING MOUNTING SURFACE	
62	17-030-37-30	REWORKING P-148 (C) 100% IN	
63	07-030-40-30	REWORKING P-148 (C) 100% IN	
64	17-030-40-30	REWORKING P-148 (C) 100% IN	
65	17-030-40-30	REWORKING P-148 (C) 100% IN	
66	17-030-40-30	REWORKING P-148 (C) 100% IN	
67	17-030-40-30	REWORKING P-148 (C) 100% IN	
68	17-030-40-30	REWORKING P-148 (C) 100% IN	
69	17-030-40-30	REWORKING P-148 (C) 100% IN	
70	17-030-40-30	REWORKING P-148 (C) 100% IN	
71	17-030-40-30	REWORKING P-148 (C) 100% IN	
72	17-030-40-30	REWORKING P-148 (C) 100% IN	
73	17-030-40-30	REWORKING P-148 (C) 100% IN	
74	17-030-40-30	REWORKING P-148 (C) 100% IN	
75	17-030-40-30	REWORKING P-148 (C) 100% IN	
76	17-030-40-30	REWORKING P-148 (C) 100% IN	
77	17-030-40-30	REWORKING P-148 (C) 100% IN	
78	17-030-40-30	REWORKING P-148 (C) 100% IN	
79	17-030-40-30	REWORKING P-148 (C) 100% IN	
80	17-030-40-30	REWORKING P-148 (C) 100% IN	
81	17-030-40-30	REWORKING P-148 (C) 100% IN	
82	17-030-40-30	REWORKING P-148 (C) 100% IN	
83	17-030-40-30	REWORKING P-148 (C) 100% IN	
84	17-030-40-30	REWORKING P-148 (C) 100% IN	
85	17-030-40-30	REWORKING P-148 (C) 100% IN	
86	17-030-40-30	REWORKING P-148 (C) 100% IN	
87	17-030-40-30	REWORKING P-148 (C) 100% IN	
88	17-030-40-30	REWORKING P-148 (C) 100% IN	
89	17-030-40-30	REWORKING P-148 (C) 100% IN	
90	17-030-40-30	REWORKING P-148 (C) 100% IN	
91	17-030-40-30	REWORKING P-148 (C) 100% IN	
92	17-030-40-30	REWORKING P-148 (C) 100% IN	
93	17-030-40-30	REWORKING P-148 (C) 100% IN	
94	17-030-40-30	REWORKING P-148 (C) 100% IN	
95	17-030-40-30	REWORKING P-148 (C) 100% IN	
96	17-030-40-30	REWORKING P-148 (C) 100% IN	
97	17-030-40-30	REWORKING P-148 (C) 100% IN	
98	17-030-40-30	REWORKING P-148 (C) 100% IN	
99	17-030-40-30	REWORKING P-148 (C) 100% IN	
100	17-030-40-30	REWORKING P-148 (C) 100% IN	

SECTION C-6

SECTION D-D
THRU ASSEMBLED UNIT WITH TRANSDUCER SECTION, POLARITY SWITCH,
TAKE UP SPOOL, & OTHER PARTS REMOVED FOR CLARITY.

ITEM	PART NUMBER	QTY	DESCRIPTION	ITEM	PART NUMBER	QTY	DESCRIPTION
UNITS OF ACCEPTABLE WORKMANSHIP ARE SPECIFIED IN AD-3000							
TOLERANCES		HEAT ADPT		HEAT ADPT		HEAT ADPT	
UNLESS OTHERWISE SPECIFIED:		R172E-143		1		1	
DECIMAL DIM.		0.006					
FRACTIONAL DIM.		2/164					
ANGULAR DIM.		1.0°					
ALL DIMENSIONS							
GIVEN IN INCHES							
				ITEM 1 ASSY FOR COMPLETE LEFT SIDE VIEW DATE 6/16/63 BY 78 Jolw3 CHECKED 6/16/63 D 017436 PLS			



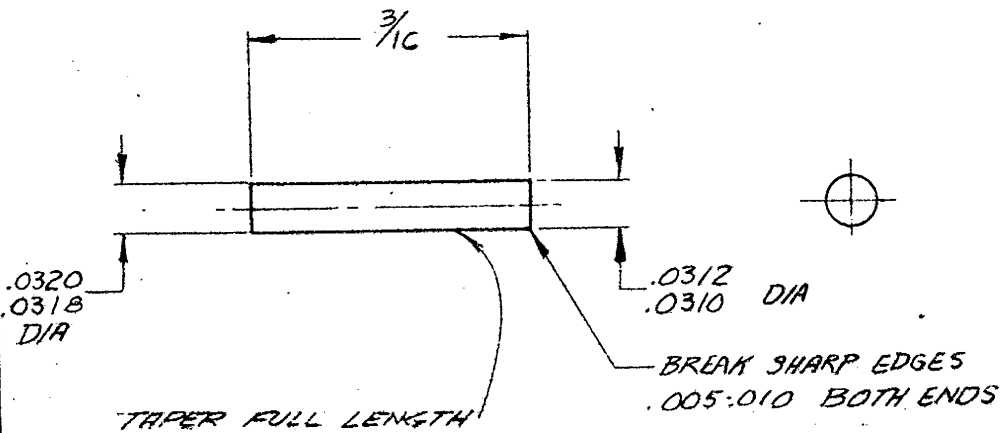


REVISION	DATE	BY	CHKD
1	10/15/54		

NO.	DESCRIPTION	QTY	UNIT
1	SEE SHEET 1		
2			
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DATE	DESCRIPTION	BY	CHKD
10/15/54	ISSUED		

REVISIONS		1742-16	REV. C
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE	F.S.	11/16/62
B	BRASS $\frac{1}{2}$ HARD WAS BRASS $\frac{1}{4}$ HARD EC 2438	R.G.A.	11/9/62
C	303 STL ST. WAS BRASS	WA	1 FEB 63



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y	NO. REQ'D.	W.O.		TITLE		STAT
DECIMAL DIM.	± .005	1742-80	1	NO REQ'D.		PIN-SHEAR, CLUTCH HOUSING STOP		STAT
FRACTIONAL DIM.	± 1/64			1		DATE	SCALE	STAT
ANGULAR DIM.	± 5°					9/17/62	4:1	STAT
ALL DIMENSIONS GIVEN IN INCHES						DATE	DWG. NO.	REV.
						1 FEB 63	1742-16	C
						DATE	DWG. SIZE	STAT
						10-24-62	A	STAT

CLEARPRINT 1020

PRODUCTION DRAWING CONTROL

DWG. NO.		REV.	
1742-17		A	
REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	.074 DIM. ADDED	RGA.	10-8-62

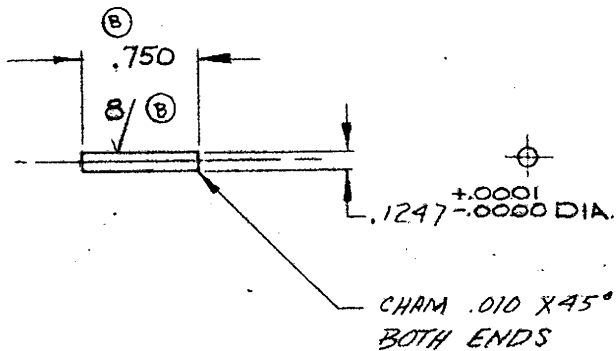
.0315 DIA. THRU
 .0310
 .114
 .074 ± .002 (A)
 .062 ± .002
 .0245 ± .0005

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	DATE	SCALE	DWG. NO.	REV.
DECIMAL DIM. ± .005	1742-80	1	302 STAINLESS STEEL	CLEAR PASSIVATE	9/17/62	10:1	1742-17	A
FRACTIONAL DIM. ± 1/64			MIL-S-7720	MIL-F-14072	1 FEB 63			
ANGULAR DIM. ± 5'			COMP. 302 COND. B	FINISH E300				
ALL DIMENSIONS GIVEN IN INCHES								

TITLE: STOP, CLUTCH HOUSING
 DATE: 9/17/62
 SCALE: 10:1
 DATE: 1 FEB 63
 DWG. NO.: 1742-17
 REV.: A

REVISIONS		DWG. NO.	REV.
		1742-18	C
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE		11/6/62
B	.750 WAS .755, 1/8 WAS 8/PER EC 2911		11-9-62
C	ADDED NOTE 1, 8/ WAS 19, .1247 ± .0001 WAS .1247 ± .0002, EC 4531		3-16-64



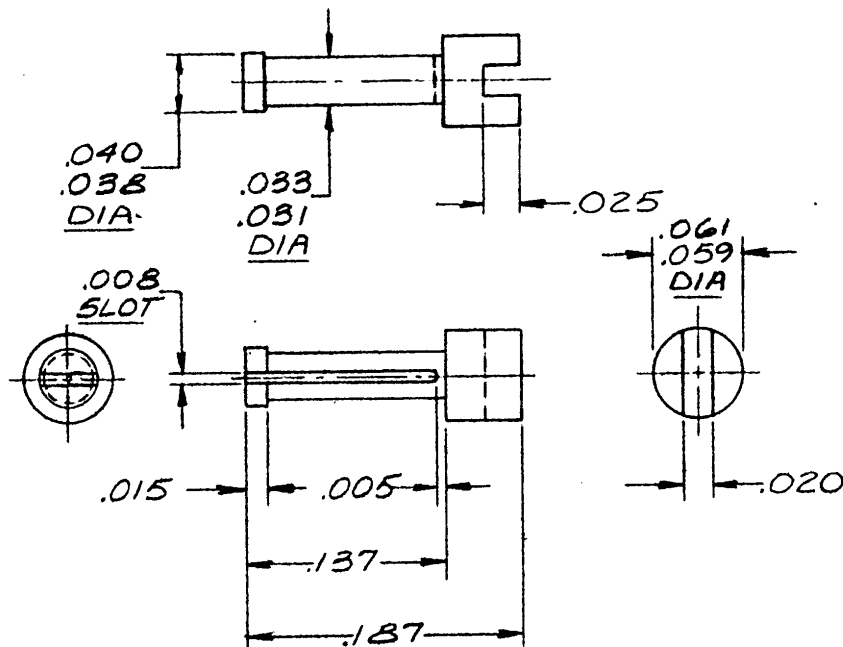
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-200

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D	W.O.		TITLE		STAT	
DECIMAL DIM. ± .005		1742-80	1	NO. REQ'D		SHAFT-CLUTCH			
FRACTIONAL DIM. ± 1/64				1					
ANGULAR DIM. ± 5°									
ALL DIMENSIONS GIVEN IN INCHES									
				MATERIAL 303 STAINLESS STEEL SPEC. MIL-S-7720 COMP. 3035		FINISH CLEAR PASSIVATE SPEC. MIL-F-14072 FINISH E300			
						DATE 9/21/62		SCALE 1:1	
						DATE 1 FEB 63		DWG. NO. 1742-18	
						DATE 12-15-62		REV. C	

CLEARPRINT 1020

PRODUCTION DRAWING CONTROL DC

REVISIONS				DWG NO	REV.
				1742-19	B
SYM.	DESCRIPTION	BY	DATE		
A	REVISED DRAWING TO RELEASE	F.S.	4/16/63		
B	ADDED NOTE 1 - EC4551		3-17-63	STAT	

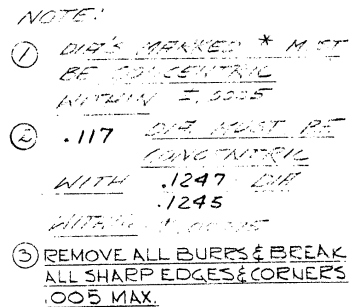


NOTES
1. REMOVE ALL BURRS AND BREAK
ALL SHARP CORNERS .005 MAX.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

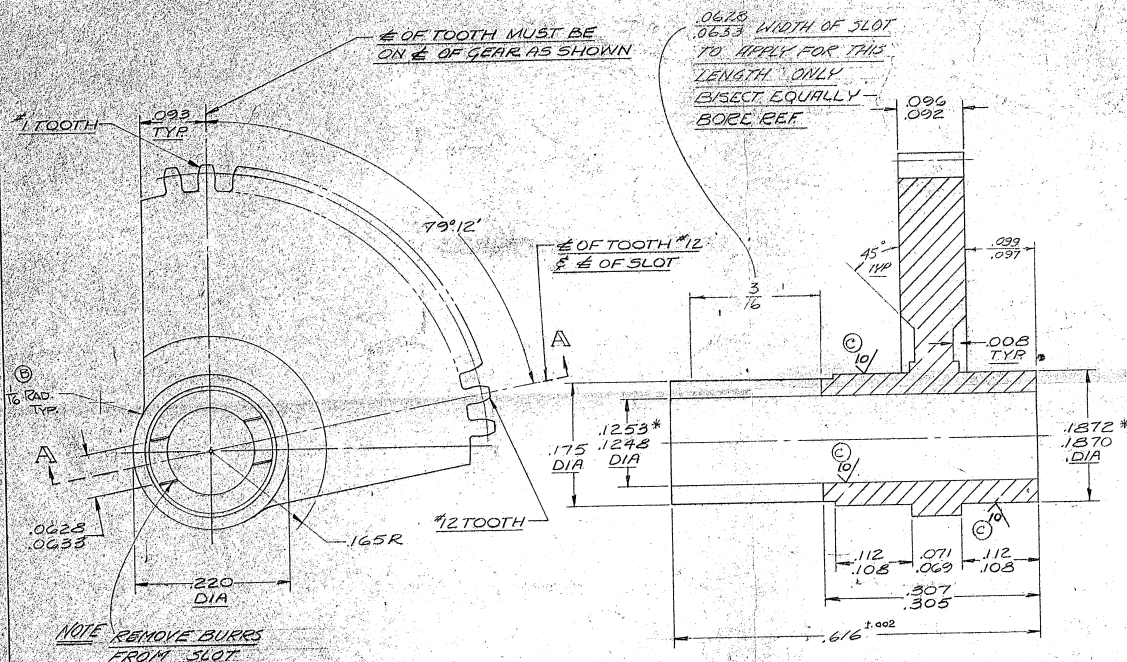
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO. REQ'D	MATERIAL	FINISH	DATE	SCALE	DWG. NO	REV.
DECIMAL DIM	± .005	1742-L1	2	303 STAINLESS STEEL	CLEAR PASSIVATE	6-27-62	10:1	1742-13	B
FRACTIONAL DIM	± 1/64					1 FEB 63			
ANGULAR DIM	± 5°					1 FEB 62			
ALL DIMENSIONS GIVEN IN INCHES				MIL-8-7720 COMP. 303S	MIL-F-14072 FINISH E300				

PRINT ISSUED APR 30 1964



MATERIAL 303 STAINLESS STL.	FINISH CLEAR PASSIVATE
SPEC. MIL-S-7720 COMP 3035	SPEC. MIL-F-14072 FINISH F300

W O.		TITLE		APR 30 1964		STAT	
NO REQ'D		GEAR - STOP					
DRAWN HM		DATE 6-22-62		SCALE 10:1			
APPROVED		DATE FEB 63		DWG. DWG.		STAT	
		DATE B 17-2-63				C	



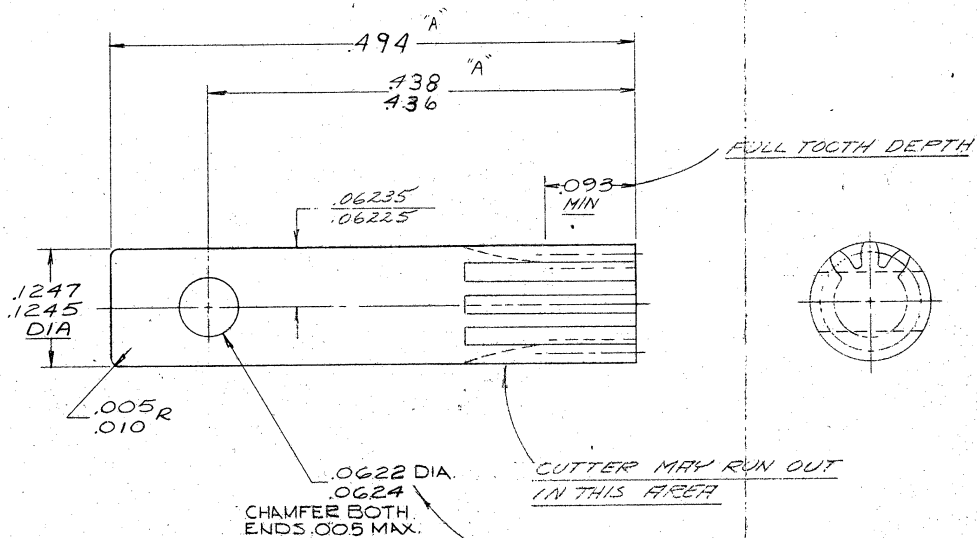
NOTE:
DIMS MARKED * MUST
BE CONCENTRIC WITH
OD OF GEAR WITHIN $\pm .005$

2. REMOVE ALL BURRS AND BREAK
ALL SHARP EDGES AND CORNERS
.005 MAX.

SECTION A-A

FULL GEAR DATA
50 TEETH
G4 PITCH
PRECISION #1
7.812-7.802 P.D.
8.125-8.105 O.D.
20° PA.

UNITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000		P. #		TITLE		STAT
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY. NO. REQ.		GEAR - SECTOR		
DECIMAL DIM. ± .009	1742-L2	MATERIAL: 4140 STAINLESS STEEL FINISH: ECFYTH PASSIVATED		DATE: 8-21-68	QTY: 10-1	
FRACTIONAL DIM. ± .004		DRAWN: 11/11/68		DATE: 1-18-69	QTY: 1	STAT
ANGULAR DIM. ± 1°		BY: 10-5-73-3 MAIL: P-14072		DATE: 11/12/68	QTY: 1	
ALL DIMENSIONS GIVEN IN INCHES		CLASS & TYPE A FINISH: E320		DATE: 1-18-69	QTY: 1	
1. REPRODUCTION OF WORK CONTROL						



GEAR DATA
 PIC #F4-1 OPTIONAL SOURCE
 10 TEETH
 96 PITCH
 .1042-.1041 P.D.
 .125-.123 O.D.
 PREC. #1
 RA. 20°

THIS HOLE MUST BE
 SQUARE WITH Q OF SHAFT
 WITHIN ±.001 AT END OF
 A 1.0 LONG PIN

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
 (UNLESS OTHERWISE SPECIFIED)
 DECIMAL DIM. ± .005
 FRACTIONAL DIM. ± 1/64
 ANGULAR DIM. ± 5°
 ALL DIMENSIONS
 GIVEN IN INCHES

NEXT ASSY. NO. REQ'D
 1742-79 1

STAINLESS STL
 SPEC. MIL-S-7720,
 COMP. 303S

CLEAR PASSIVATE
 SPEC. MIL-E-14072
 FINISH E300

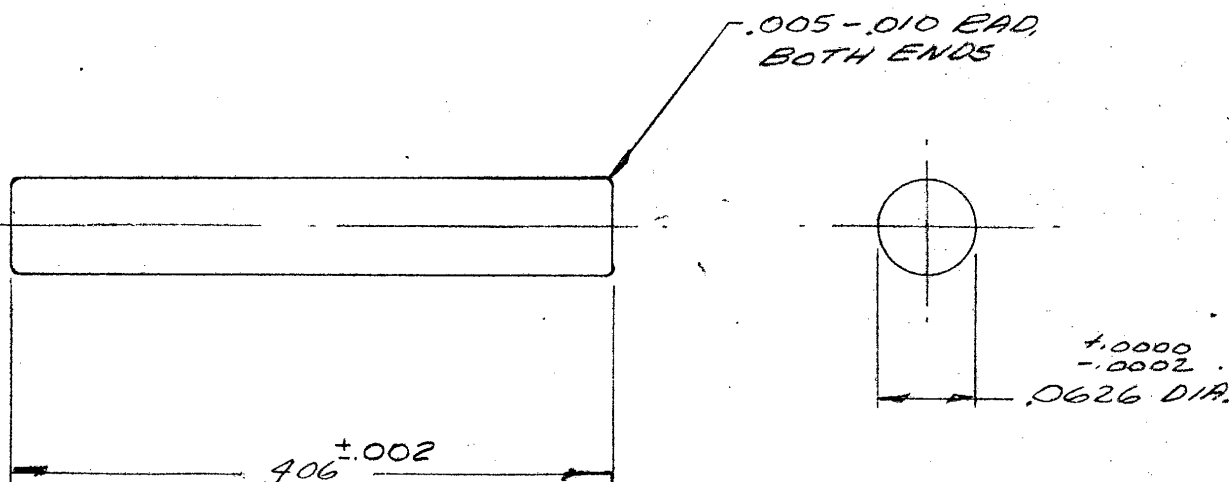
W.O. NO. REQ'D. 1
 DATE 226-62
 SCALE 10:1
 DATE 1 FEB 63
 DWG. NO. B 1742-22
 REV. C

PRINT ISSUED APR 30 1964

PRODUCTION DRAWING CONTROL

DC

REVISIONS				REV.
				1742-23
SYM.	DESCRIPTION	BY	DATE	
A	REVISED PRIOR TO RELEASE			11-16-64
B	406 $\pm$.002 WAS 406 $\pm$.005-EC4514			3-13-64



PIC DESIGN CORP

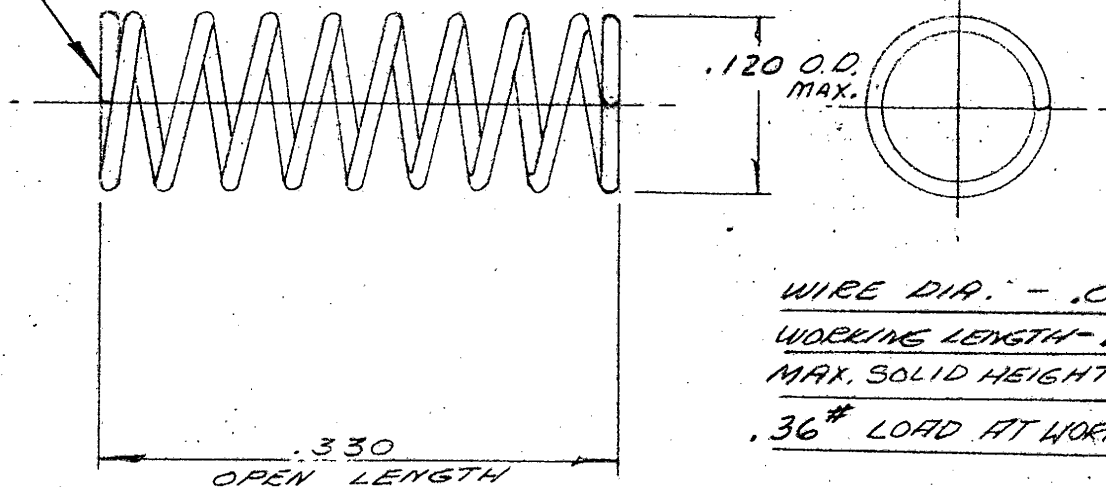
CAT. # D3-437 (FOR LIMITED PRODUCTION ONLY)

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE	
DECIMAL DIM.	$\pm$.005	1742-79	1	NO. REQ'D.	1	PIN-SECTOR GEAR LOCK	
FRACTIONAL DIM.	$\pm$ 1/64			DRAWN	RS4	DATE	9-25-62
ANGULAR DIM.	$\pm$ 5'					SCALE	10:1
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL 303	FINISH	ATE	1 FEB 63
				STAINLESS STEEL	CLEAR PASSIVATE	DWG. SIZE	A
				MIL-S-7720	MIL-F-14072	DWG. NO.	1742-23
				COMP. 303S	FINISH-E300	STAT. REV.	B

CLEARPRINT 1000H

BOTH ENDS
SQUARE & GROUND



REVISIONS		DWG. NO.	REV.
		1742-24	B
SYM.	DESCRIPTION	BY	DATE
AB	REVISED PRIOR TO RELEASE	F.S.	11/6/62

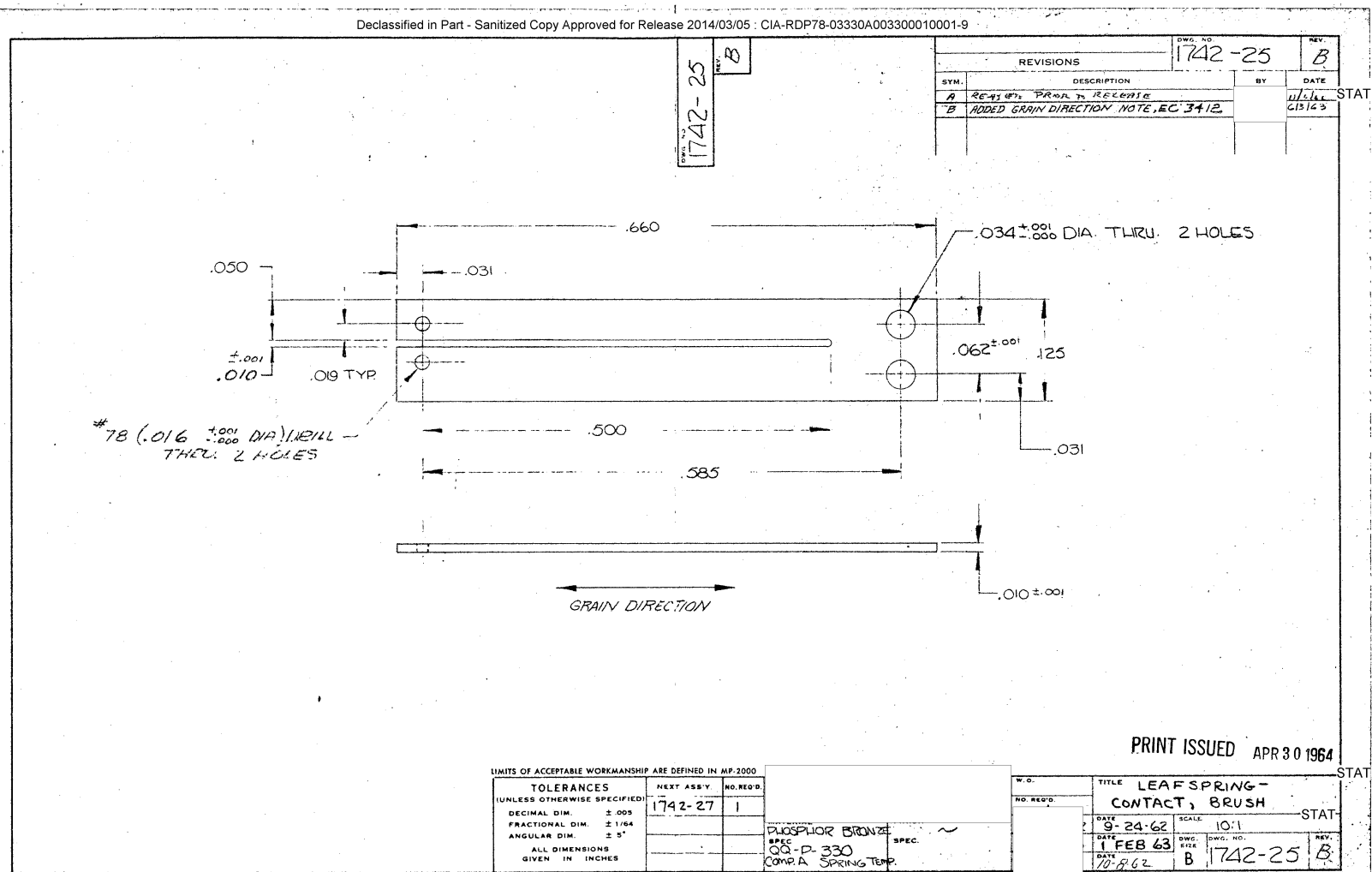
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT.
DECIMAL DIM.	± .005	1742-L2	1	NO. REQ'D.		SPRING-COMPRESSION, SECTOR GEAR		
FRACTIONAL DIM.	± 1/64			1		DATE 9-25-62		
ANGULAR DIM.	± 5°			DRAWN RSH		SCALE 10:1		
ALL DIMENSIONS GIVEN IN INCHES				DATE 1 FEB 63		DWG. NO. 1742-24		STAT.
				DATE 12-5-62		A		B

CLEARPRINT 1000H

PRODUCTION DRAWING CONTROL

DO

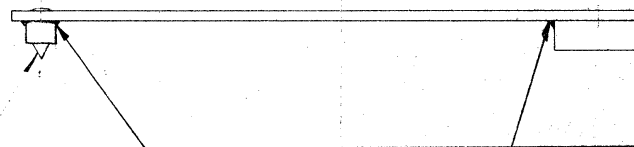
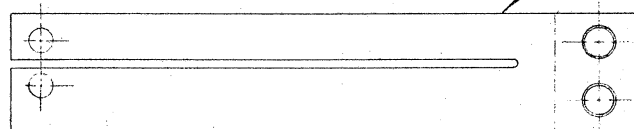


REVISIONS		DWG. NO.	REV.
		1742-26	B
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE		11/4/62
B	.036 DIA WAS .031; MAT'L WAS CORR SLOWER PER EC 2880		12-27-62

NOTE: MAT'L: DALNEY #7 HEAT TREATED
SOURCE: J. M. NEY CO.
DRAWER 990, HARTFORD 1, CONN.

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL SPEC	FINISH SPEC	TITLE	DATE	SCALE	DWG. NO.	REV.
DECIMAL DIM.	± 1/64	1742-27	2	SEE NOTE		CONTACT-BRUSH	8-24-62	50:1	1742-26	B
FRACTIONAL DIM.	± 1/64						1 FEB 63			
ANGULAR DIM.	± 5'									
ALL DIMENSIONS GIVEN IN INCHES						PRODUCTION DRAWING CONTROL				

		SWG. NO.		REV.	
REVISIONS		1742-27		C	
SYM.	DESCRIPTION	BY	DATE		
A-D	REVISED PRINTING RELEASE	FS.	4/15/65		
C	BOTTOMS WERE STAKED TO LEAFSPRING PER EC 2891	WA	1 FEB 63		



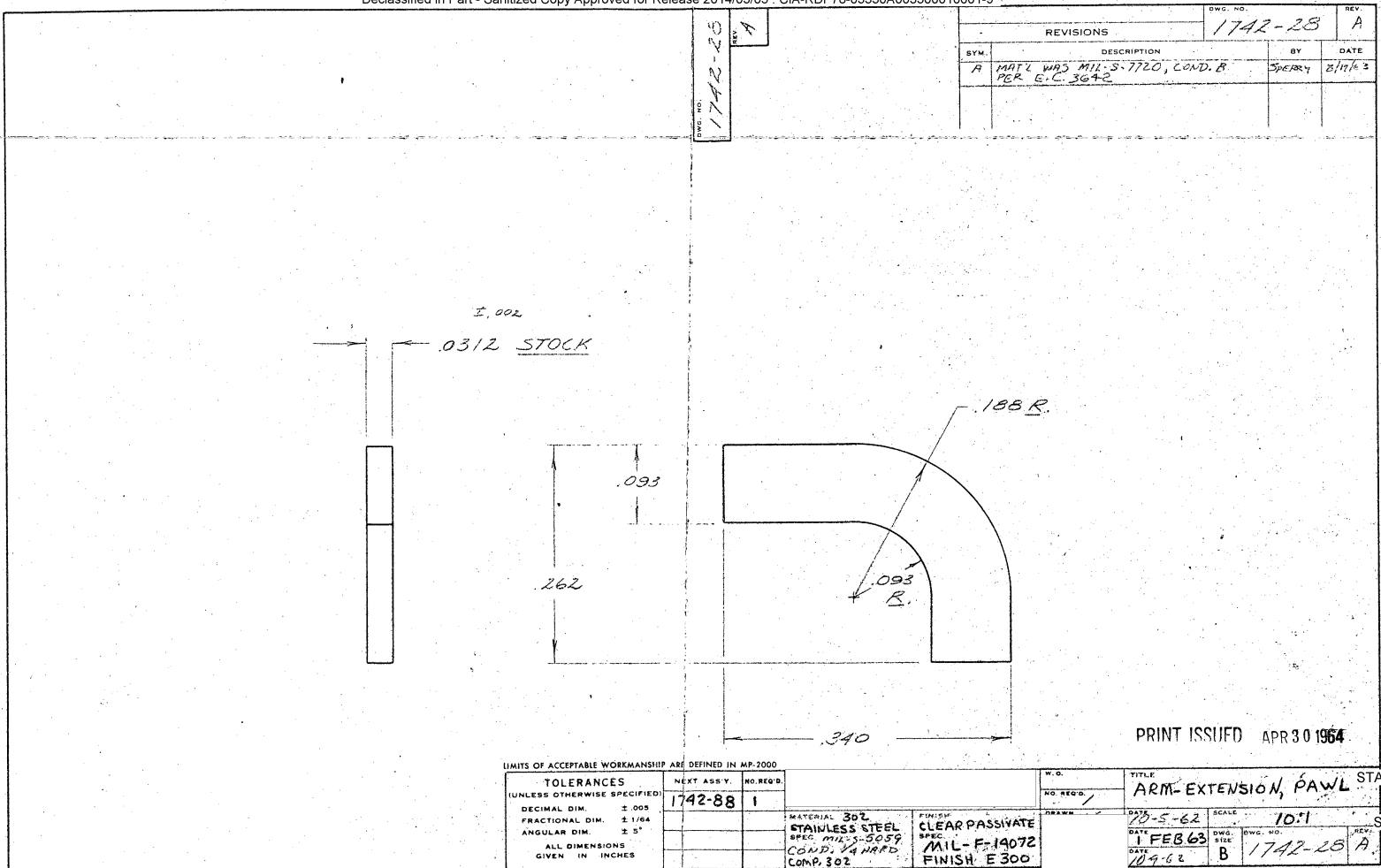
26
1742 2-REQ'D,

SOFT SOLDER SECURELY IN PLACE. TAKE PRECAUTIONS NOT TO DESTROY THE SPRING TEMPER OF THE TWO SPRING LEAVES. THE TWO TAPPED HOLES MUST BE CLEAR AFTER SOLDERING.

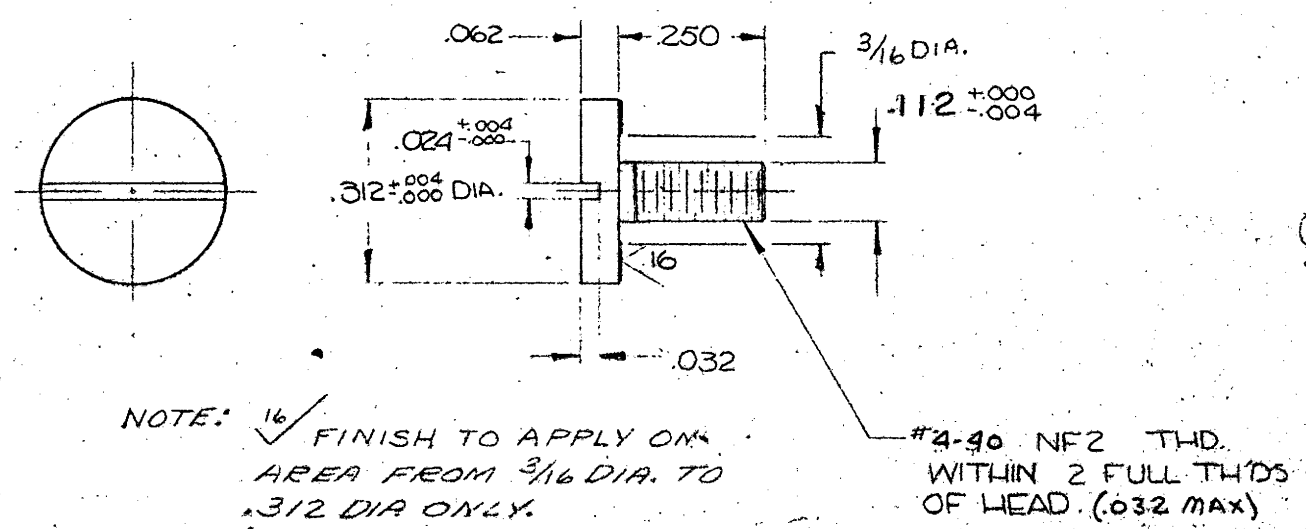
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1742-L3	1
FRACTIONAL DIM. $\pm .004$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

W.O.	TITLE
NO. REQ'D.	ASSEMBLY-
	LEAFSPRING & CONTACT BRUSH
DATE	SCALE
9-29-62	10:1
DATE	DWG. NO.
10-9-62	1742-27
DATE	SIZE
	B



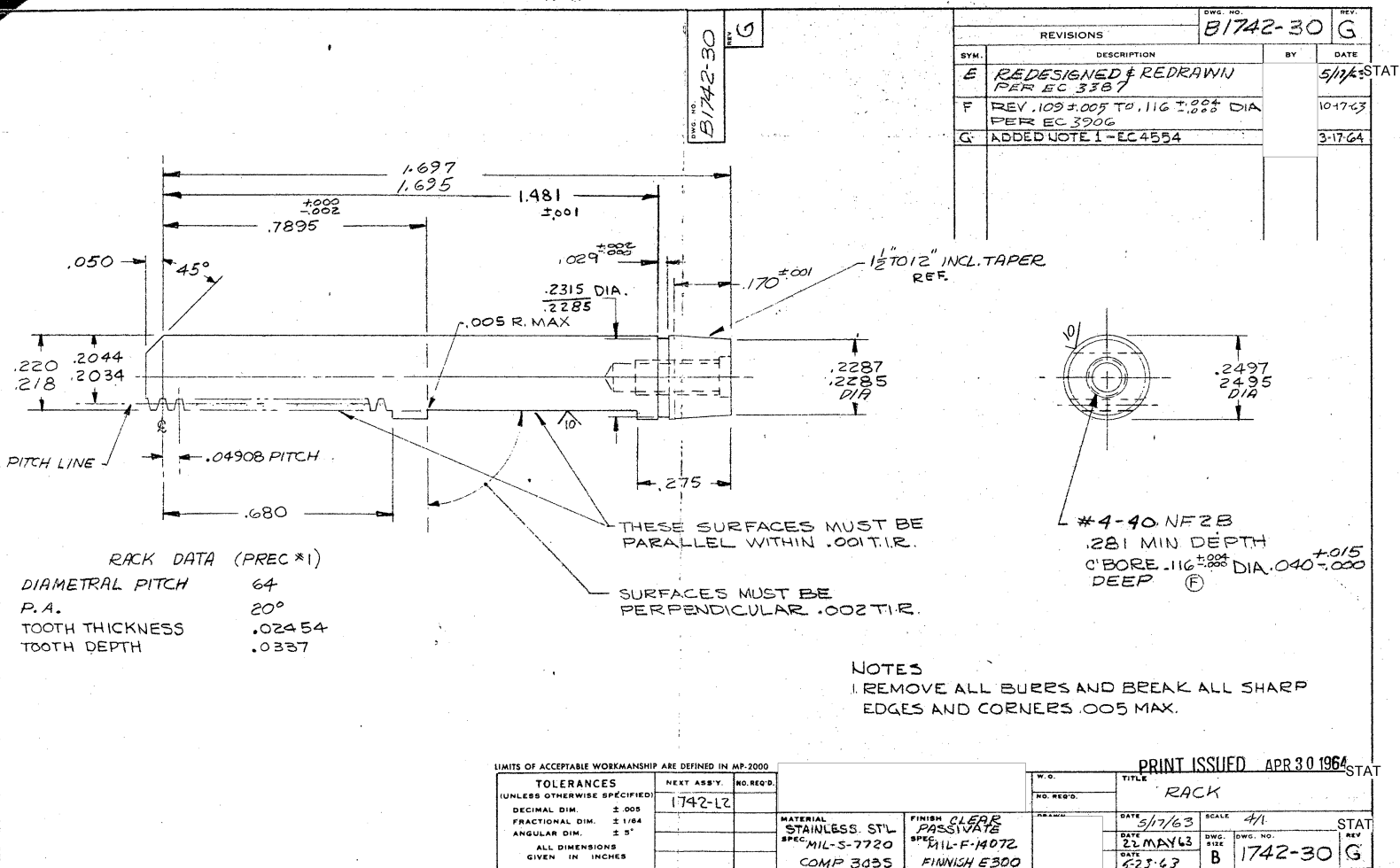
REVISIONS		DWG. NO.	REV.
		1742-29	B
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE		11/6/62
B	4-40 THD WAS 3-56 THD / EC 3386		23 MAY 63



NOTE: 1/16 FINISH TO APPLY ON AREA FROM 3/16 DIA. TO .312 DIA ONLY.

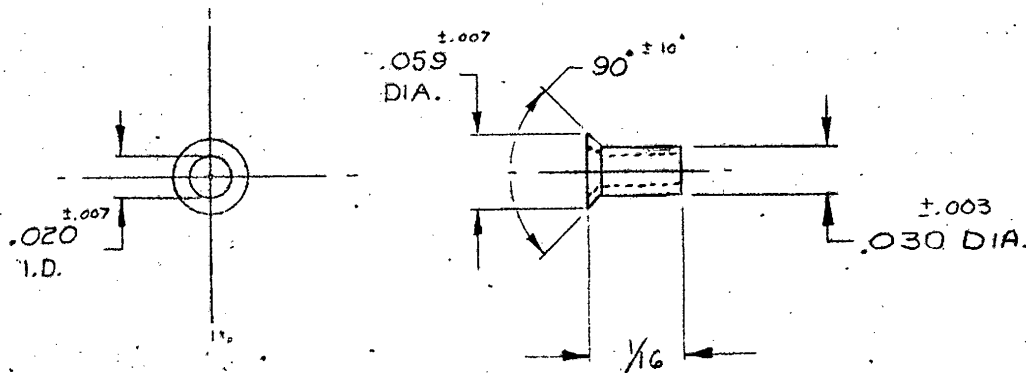
#4-40 NF2 THD. WITHIN 2 FULL THDS OF HEAD. (.032 MAX)

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000			W.O.		TITLE	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.	NO.	REQ'D.	SCREW-CAP TO RACK	
DECIMAL DIM. ± .005	1742-L2	1				
FRACTIONAL DIM. ± 1/64						
ANGULAR DIM. ± 5°						
ALL DIMENSIONS GIVEN IN INCHES			MATERIAL #303 STAINLESS STEEL SPEC. MIL-S-7720 COMP. 303S		FINISH CLEAR PASSIVATE SPEC. MIL-F-14072 FINISH E300	
			DATE 9-24-62		SCALE 4:1	
			DATE 1 FEB 63		DWG. NO. 1742-29	
			DATE 10-8-62		REV. B	





REVISIONS				REV.
				A
SYM.	DESCRIPTION	BY	DATE	
A	CONVERTED DOWEL PIN TO FUNNELET PER EC 3328		STAT 63	



NOTE-

1. USE CIRCON # CE22F OR EQUAL.
2. CIRCON COMPONENT CORP.
GOLETA, CALIF.

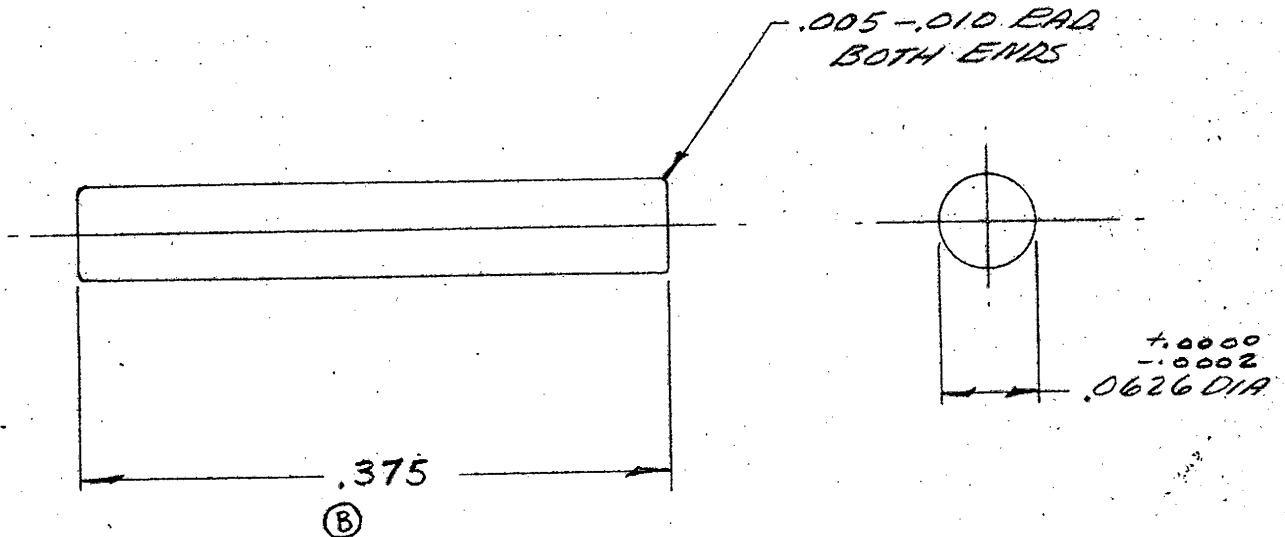
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.D.		TITLE		STAT
DECIMAL DIM. ±.005		1742-88	1	NO. REQ'D.		PIN-ANCHOR, PAWL SPRING		
FRACTIONAL DIM. ± 1/64				DRAWN		DATE	SCALE	
ANGULAR DIM. ± 5°				166		10-5-62	10:1	
ALL DIMENSIONS GIVEN IN INCHES				DATE		DATE	DWG. NO.	RE
				1 FEB 63		1 FEB 63	1742-32	STAT
				DATE		DATE	DATE	
				10-4-63		10-4-63	10-4-63	

CLEARPRINT 1020

PRODUCTION DRAWING CONTROL DC

REVISIONS				DWG. NO.	REV.
				1742-33	B
SYM.	DESCRIPTION	BY	DATE		
A	REVISED PRIOR TO RELEASE		11/16/62	STAT	
B	LENGTH WAS .400 PER EC 2882		1 FEB 63		



PIC DESIGN CORP
GROUND SHAFT (FOR LIMITED
PRODUCTION ONLY)

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

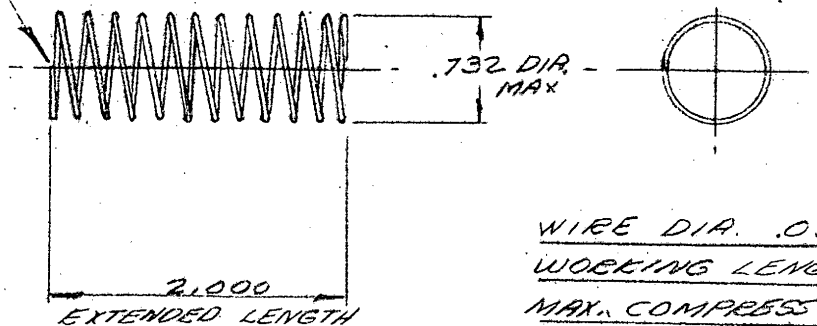
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY.	NO. REQ'D.	W.O.		TITLE		STAT
DECIMAL DIM.	± .005	1742-124	1	NO. REQ'D.	1	PIN-GUIDE, CAP		
FRACTIONAL DIM.	± 1/64			DRAWN	BSH	DATE	9-24-62	SCALE
ANGULAR DIM.	± 5°					DATE	1 FEB 63	DWG. SIZE
ALL DIMENSIONS GIVEN IN INCHES						DATE	10-8-62	DWG. NO.
							A	1742-33
								B

CLEARPRINT 1000H

PRODUCTION RELIABILITY CONTROL DC

REVISIONS				DWG. NO.	REV.
				1742-34	A
SYM.	DESCRIPTION	BY	DATE		
A	REVISED PRIOR TO RELEASE	F.S.	11/5/62		

BOTH ENDS
SQUARE & GROUND



WIRE DIA. .032

WORKING LENGTH - 1.125

MAX. COMPRESSED HEIGHT - .562

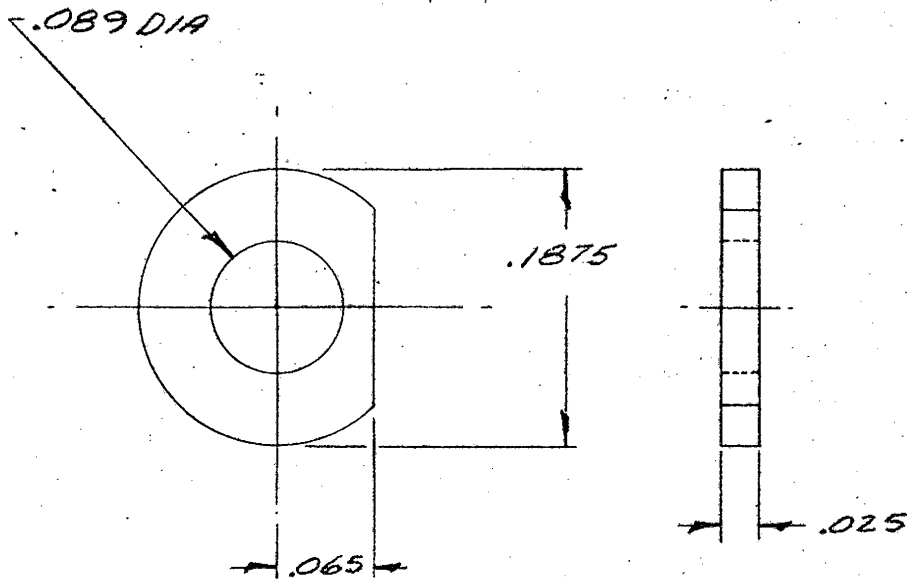
11 FULL COILS

.37# LOAD AT WORKING LENGTH

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

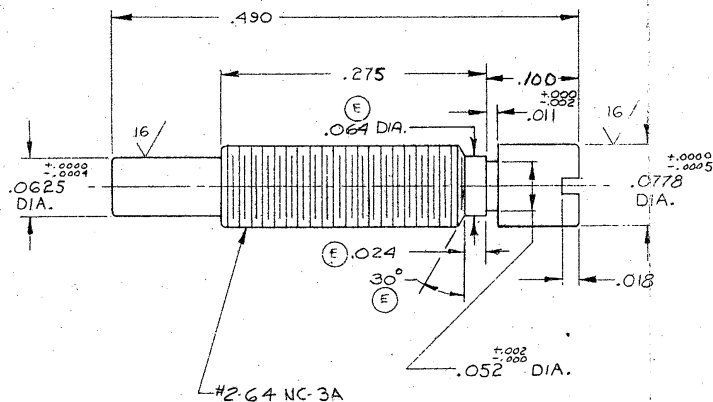
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT
DECIMAL DIM.	± .005	1742-L2	1	NO. REQ'D.		SPRING -		
FRACTIONAL DIM.	± 1/64			1		COMPRESSION, CAP		
ANGULAR DIM.	± 5°			DRAWN		DATE		
ALL DIMENSIONS GIVEN IN INCHES				P.S.W.		9-25-62		
						SCALE		
						1:1		
						DATE		
						1 FEB 63		
						DWG. SIZE		
						A		
						DWG. NO.		
						1742-34		
						REV.		
						A		

REVISIONS		DWG. NO.	REV.
		1742-35	B
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE		11/1/63
B	MATL WAS MIL-S-7720, COND. B. PER E.C. 3642		8/17/63



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5'$ ALL DIMENSIONS GIVEN IN INCHES		NEXT ASS'Y. 1742-L3 NO. REQ'D. 2	MATERIAL 302 STAINLESS-STEEL SPEC. MIL-S-5059 COMP. 302 COND. 4	FINISH CLEAR SPEC. PASS. VITE MIL-F-14072 FINISH E300	W.O. NO. REQ'D. 2 DRAWN RSH CHECKED	TITLE WASHER- RETAINING BEARING DATE 3-24-62 SCALE 10:1 DATE 1 FEB 63 DWG. NO. 1742-35 DWG. SIZE A	REV. B DATE 11/1/63 STAT
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REVISIONS		DWG. NO.	REV.
		B1742-36	F
SYM.	DESCRIPTION	BY	DATE
D	REDRAWN & REDESIGNED WAS B SIZE. PER E.C. 3400		5-24-63
E	ADDED DIMS .064 DIA x .024 @ 30° PER EC 3581		8/4/63
F	#2-64 NC 3A WAS #2-56 NC 2A, 0111882 WAS .012" DIA PER EC 4548		3-17-64

NOTES:
1. BREAK SHARP EDGES .005-.010 R.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1742-15	1
FRACTIONAL DIM. $\pm 1/64$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

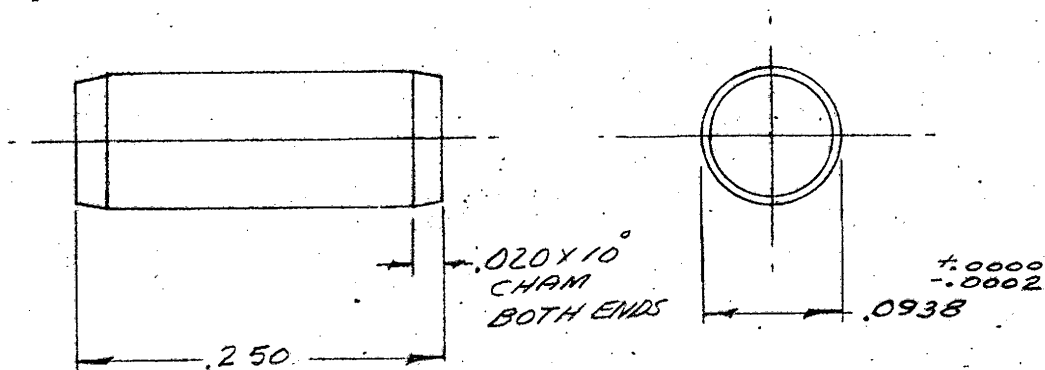
MATERIAL
STAINLESS STEEL
303
SPEC.
MIL-S-7720
COMP. 303 S

FINISH
CLEAR PASSIVATE
SPEC.
MIL-F-14072
FINISH E300

W.O.		TITLE		SCALE	
NO. REQ'D. 1		SCREW-LEAD, BRAKE ADJUSTMENT		10:1	
DATE 28 MAY 63		DWG. NO. B1742-36		REV. F	
BY F-27-63		SCALE 10:1		STAT	



REV. NO.		1742-38		REV.	A
REVISIONS					
SYM.	DESCRIPTION			BY	DATE
A	REVISED BY PROD. ENG. PRIOR TO RELEASE				STAT
B	DUX. FORM BLOCK TOL. REMOVED PER EC 2406				11-8-62



PURCHASE FROM — PIC DESIGN CORP.
CAT. # DA-250

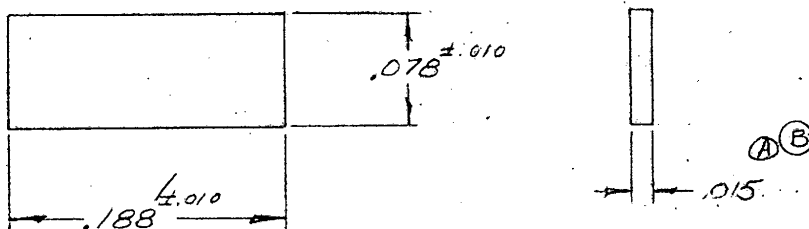
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL 303 STAINLESS STEEL SPEC MIL-S-7720 COMP. 303S		FINISH CLEAR PASSIVATE SPEC MIL-F-14072 FINISH E300		W.O.	TITLE PIN-GUIDE, STAT	
DECIMAL DIM. 0.0005		1742-106	1					NO. REQ'D.	BRAKE	
FRACTIONAL DIM. 0.0005								DRAWN	DATE 9-24-62	
ANGULAR DIM. 0.0005								DATE 1 FEB 63	SCALE 10:1	
ALL DIMENSIONS GIVEN IN INCHES								DATE 11-8-62	DWG. NO. 1742-38	
									STAT	

CLEARPRINT 1000H

PRODUCTION DRAWING CONTROL DO

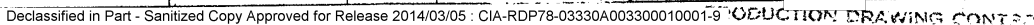
DWG. NO.		1742 39		REV.	B
REVISIONS					
SYM.	DESCRIPTION	BY	DATE		
A	THICKNESS WAS .015. MATL BLOCK, ADDED "ARMSTRONG TYPE 366" PER EC 2259		10/1/62		
B	.015 WAS .030 EC 2435		11/9-62		



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.	MATERIAL SPEC. <i>CORK</i> ARMSTRONG TYPE 366	FINISH SPEC. <i>~</i>	W.O.	TITLE		STAT
	1742-78	1			NO. REQ'D.	PAD-FRICTION, BRAKE		
					DRAWN	DATE	SCALE	
					DATE	DWG. NO.	STAT	
					DATE	DATE	DWG. NO.	
					1 FEB 63	10-8-62	A	1742-39
								D

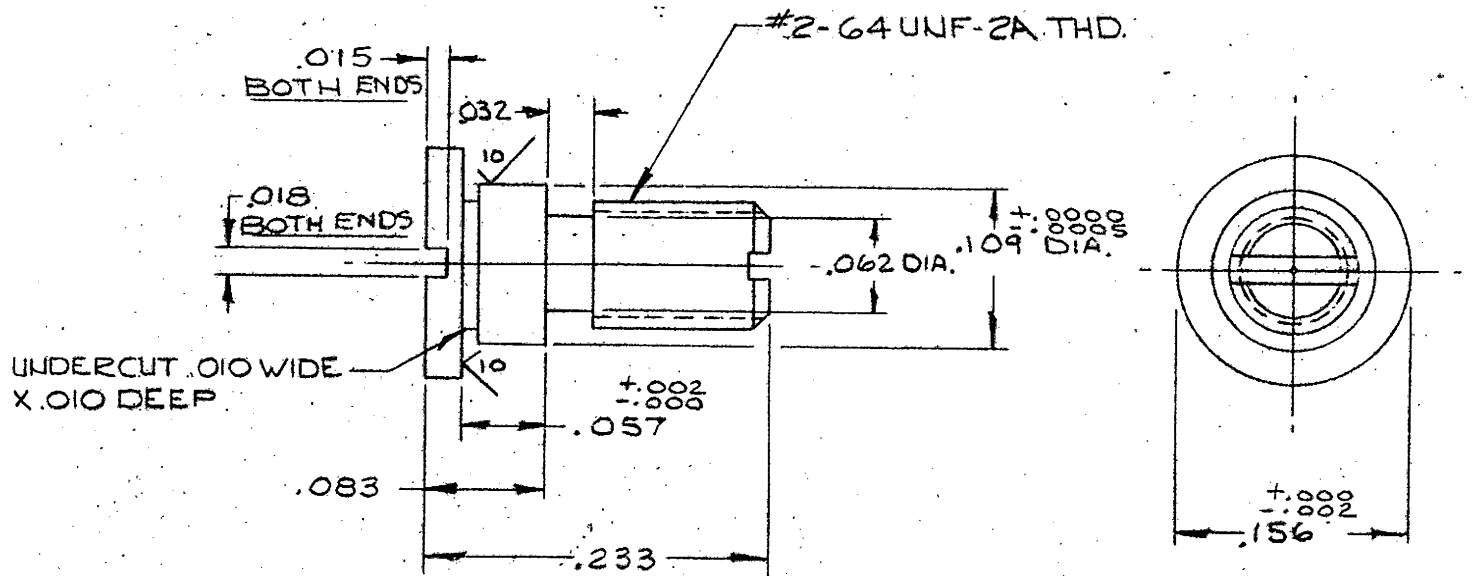




NOTES

1. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES AND CORNERS .005 MAX.

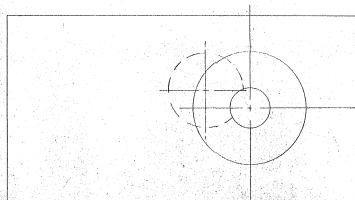
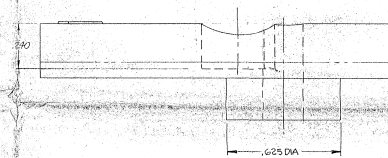
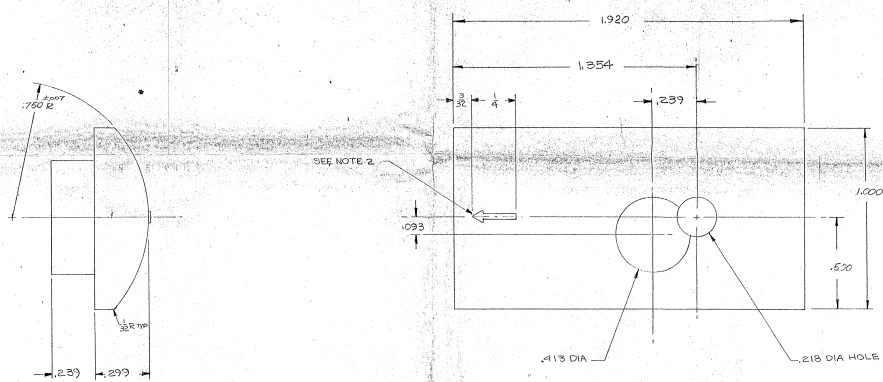
REVISIONS			DWG. NO.	REV.
			1742-42	D
SYM.	DESCRIPTION	BY	DATE	
B	REVISED & REDRAWN PER EC. 3327		5-1-64	
C	ADDED NOTE 1, ADDED .010 X .010 UNDERCUT, EC 4547		3-17-64	
D	#2-64 UNF-2B THD. WAS #2-56 NC-2 THD - EC 4590		4-1-64	



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	V.O.		TITLE		STAT	
DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5'$		1742-413	1	NO. REQ'D.		STUD-SHOULDER, PAWL			
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL 303 STAINLESS STEEL SPEC. MIL-S-7720 COMP. 3035		FINISH SPEC. CLEAR PASSIVATE MIL-F-14072 FINISH E300		DRAWN KSH CHECKED	
				DATE 5-1-63		SCALE 10:1			
				DATE 9 MAY 63		DWG. NO. 1742-42		STAT	
				DATE		A			

CLEARPRINT 1020



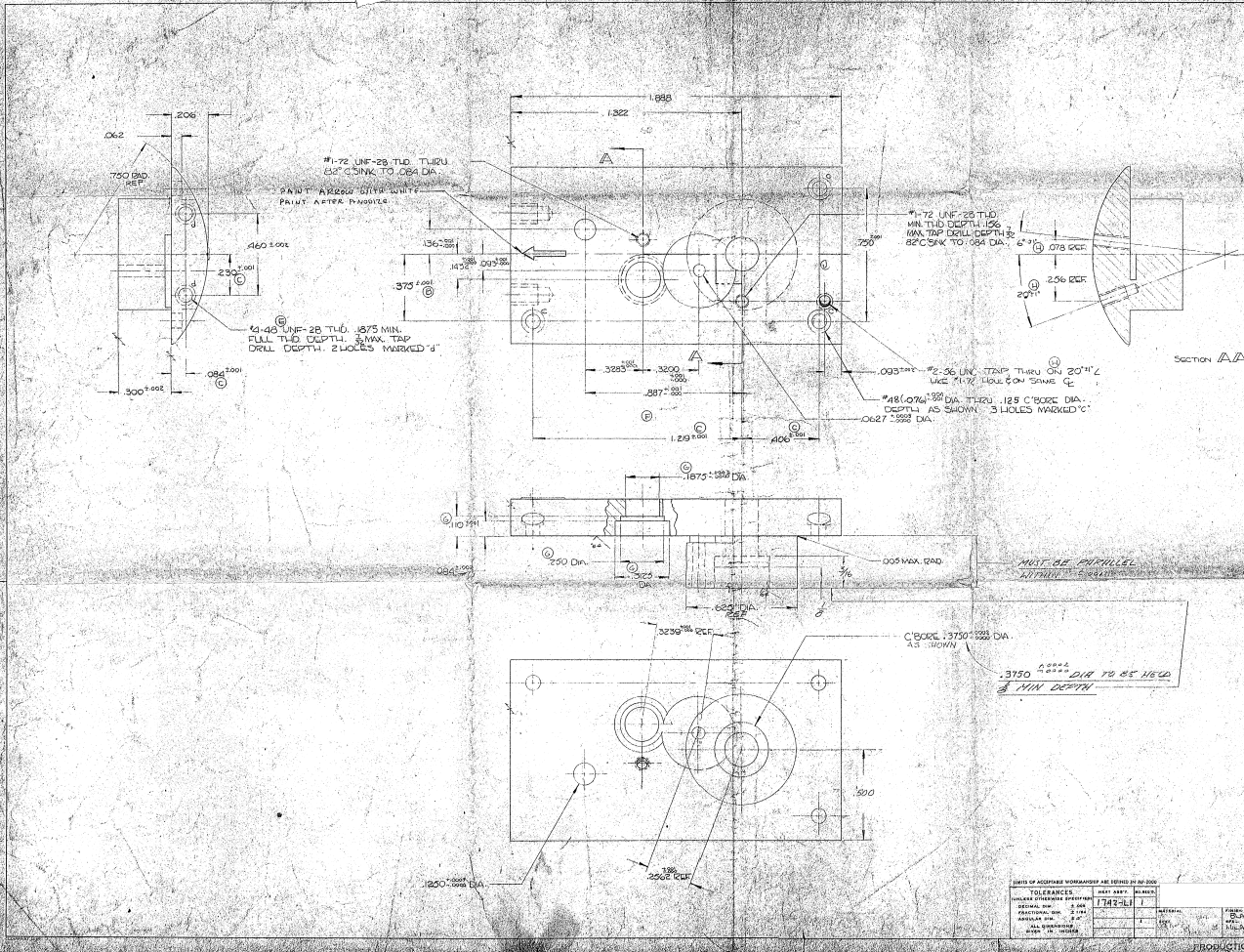
D1742-43
 N

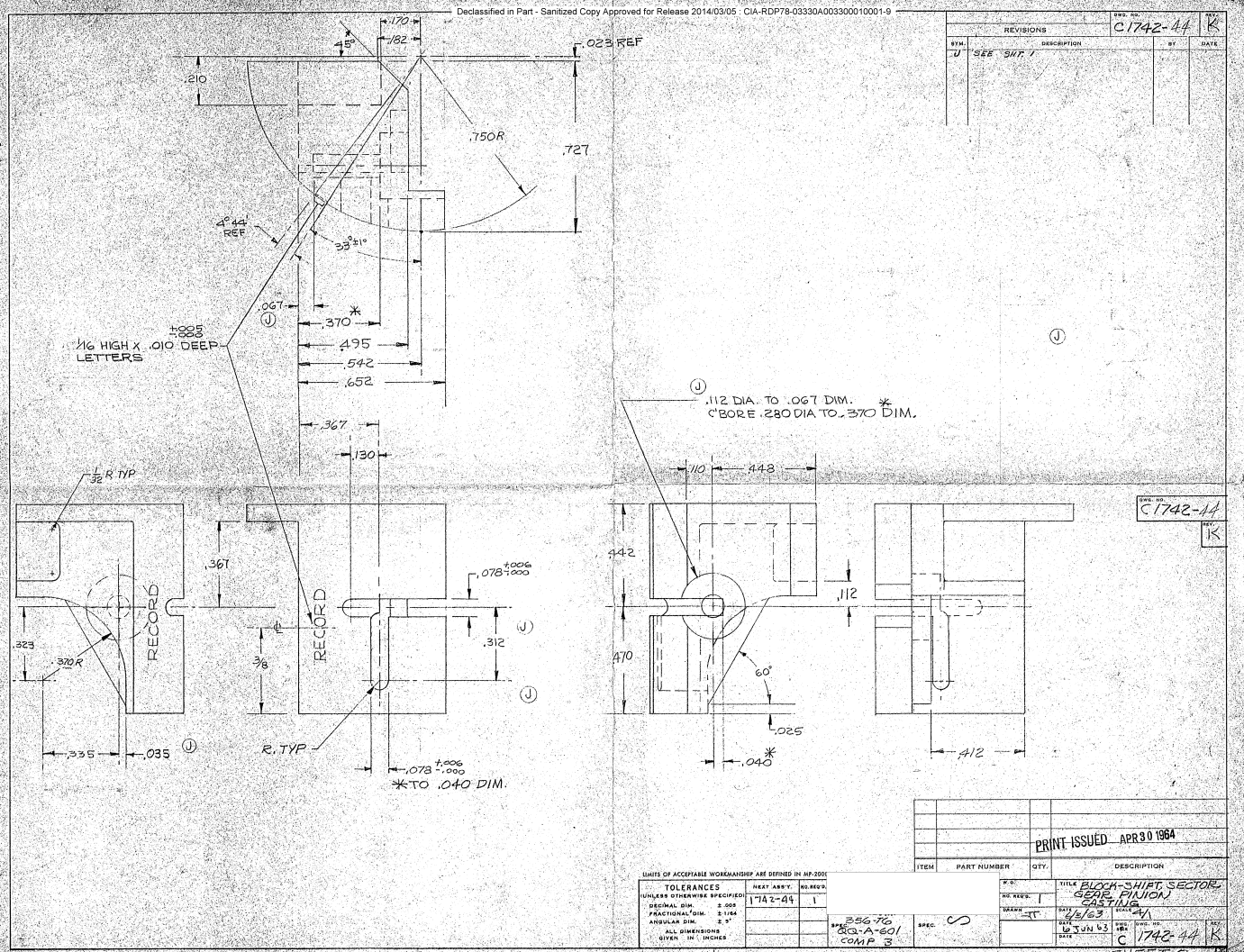
- NOTES:
1- TOLERANCES ON DECIMAL DIM: $\pm .005$ FOR THE FIRST INCH & AN
ADDITIONAL $\pm .005$ FOR EACH ADDITIONAL INCH.
2- CAST RAISED ARROW .015 WIDE X .010 HIGH, HEAD SIZE
PER DISCRETION OF MFG.

PRINT ISSUED MAY 1 1964

UNIT OF ACCEPTABLE WORKMANSHIP ARE SPECIFIED BY HP-2000			ITEM	PART NUMBER	QTY	DESCRIPTION
TOLERANCES UNLESS OTHERWISE SPECIFIED: DECIMALS $\pm .015$ FRACTIONAL DIM. $\pm .016$ ANGULAR DIM. $\pm .5^\circ$ ALL DIMENSIONS UNLESS IN INCHES			HEAT ASBY. NUMBER 356-76 W3-A-601 COMP. 3		W. E. DR. REV. 5 DESIGNED CHECKED APPROVED	TITLE PLATE - RIGHT SIDE CASTING DATE 8/1/59 A/I REV. NO. D 1742-43 A

REVISIONS		1742-43
1	ORIGINAL	1742-43
2	REVISION	1742-43
3	REVISION	1742-43
4	REVISION	1742-43
5	REVISION	1742-43
6	REVISION	1742-43
7	REVISION	1742-43
8	REVISION	1742-43
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100	REVISION	1742-43

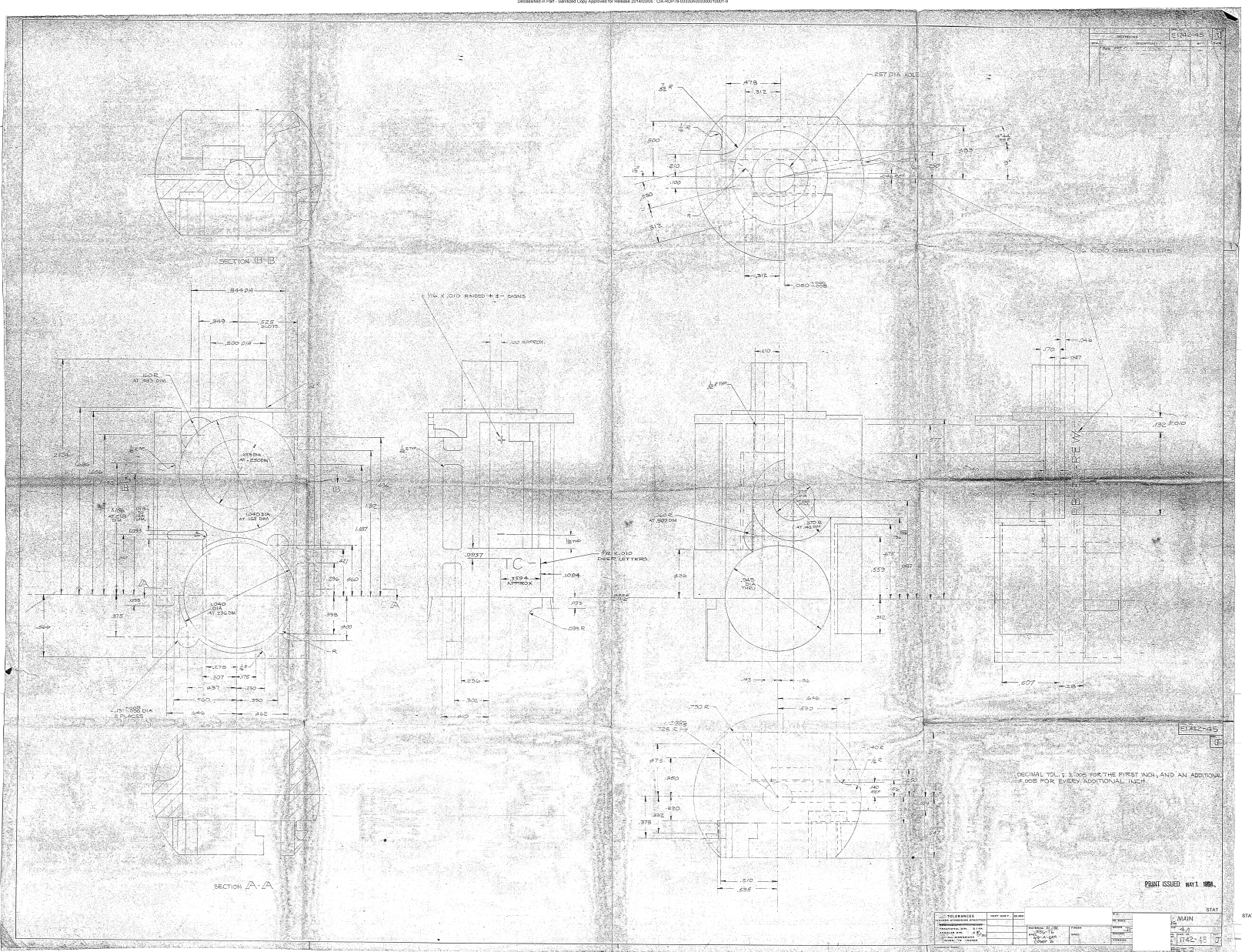






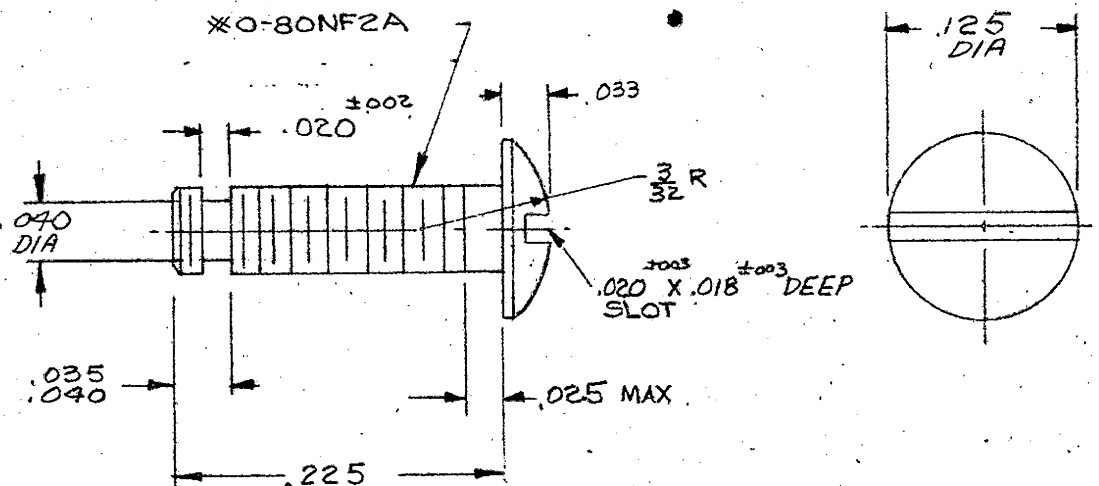
MACHINE DRAW

[illegible]





REVISIONS		DWG. NO.	REV.
		A1742-46	A
SYM.	DESCRIPTION	BY	DATE
A	REDESIGN PER EC 3379	JT	5/20/63

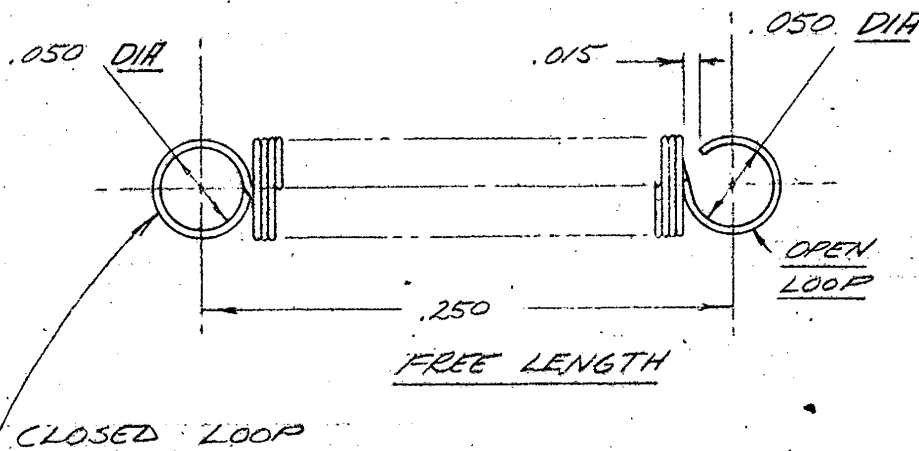


LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.	TITLE		STAT
DECIMAL DIM. ± .005				NO. REQ'D. 1	STUD-ANCHOR PAWL SPRING		
FRACTIONAL DIM. ± 1/64				DRAWN JT	DATE 5/20/63	SCALE 10/1	
ANGULAR DIM. ± 5°					DATE 22 MAY 63	DWG. SIZE A	
ALL DIMENSIONS GIVEN IN INCHES					DATE	DWG. NO. 1742-46	REV. A
							STAT

CLEARPRINT 1020

REVISIONS			
DWG. NO. 1742-47			REV.
SYM.	DESCRIPTION	BY	DATE



.350 WORKING LENGTH
LOAD AT WORKING
LENGTH..
.062 MAX. O.D.
.006-.007 WIRE DIA.
LOOPS ON CENTER
& PARALLEL

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.	TITLE		STAT
DECIMAL DIM.	± .005	1742-L13	1	NO. REQ'D. 1	SPRING - TENSION; PAWL		STAT
FRACTIONAL DIM.	± 1/64				DATE 10-5-62	SCALE 10:1	
ANGULAR DIM.	± 5°				DATE 1 FEB 63	DWG. SIZE A	
ALL DIMENSIONS GIVEN IN INCHES					DATE 10-9-62	DWG. NO. 1742-47	REV. STAT
MATERIAL 302 STAINLESS STEEL SPEC. SPRING TEMPER MIL-W-6713 COMP. B		FINISH CLEAR PASSIVATE SPEC. MIL-F-14072 FINISH E300		DRAWN JGG			

CLEARPRINT 1020

PRODUCTION DRAWING CONTROL

REVISIONS		DWG. NO.	REV.
		1742-48	B
SYM.	DESCRIPTION	BY	DATE
A-B	REVISED PRIOR TO RELEASE	F.S.	11/7/64

PIC DESIGN CORP. *FOR LIMITED PRODUCTION ONLY*

SHAFTING

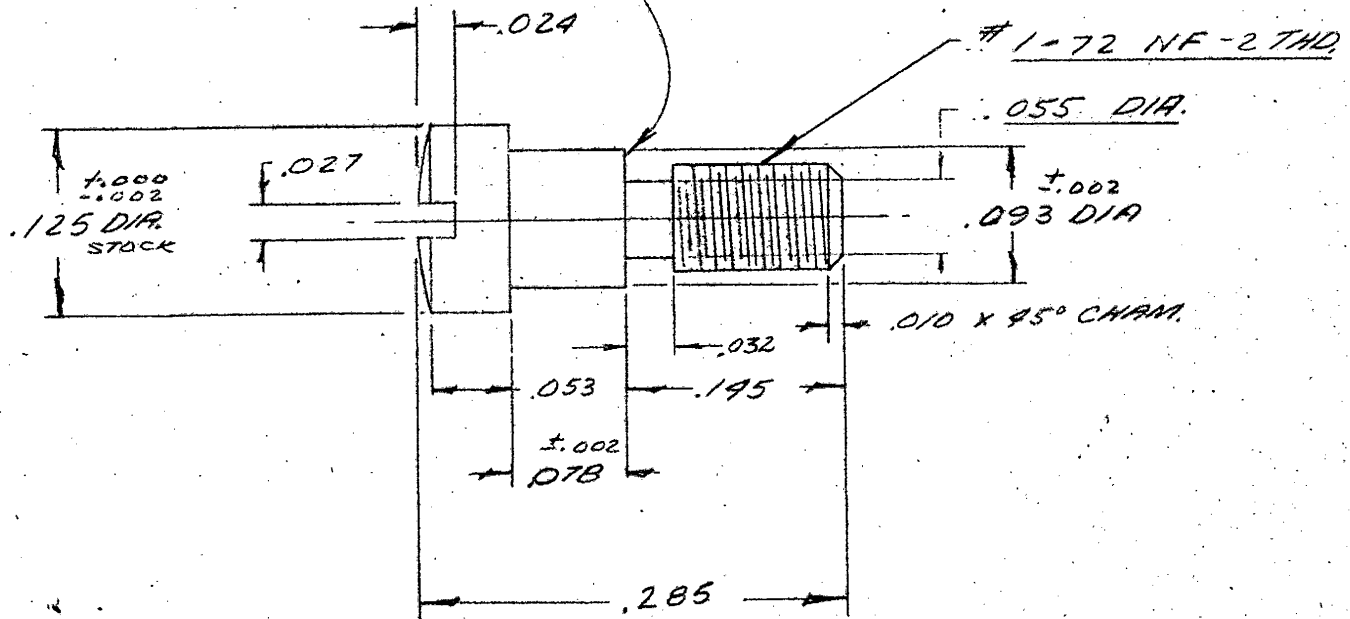
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	W.O.	TITLE	DATE	SCALE	DWG. NO.	REV.
DECIMAL DIM. ± .005	1742-L1	1	303 STAINLESS STEEL	CLEAR PASSIVATE	1	SHAFT-TAKE-UP 5POOL	9-25-62	10:1	1742-48	B
FRACTIONAL DIM. ± 1/64			MIL-S-7720	MIL-F-14072			1 FEB 63			
ANGULAR DIM. ± 5°			COMP. 303S	FINISH E300			10-5-62			
ALL DIMENSIONS GIVEN IN INCHES										

Declassified in Part - Sanitized Copy Approved for Release 2014/03/05 : CIA-RDP78-03330A003300010001-9

2014/03/05 : CIA-RDP78-03330A003300010001-9		DWG. NO.	REV.
REVISIONS		1742-49	1
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE	F.S.	11/7/62

DO NOT DEFORM SHOULDER
WHEN THREADING PART.



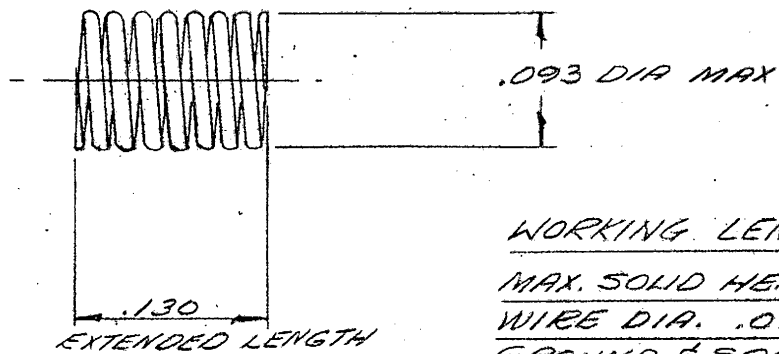
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W. O.		TITLE		STAT
DECIMAL DIM. $\pm .005$		1742-L2	2	NO. REQ'D. 2		SCREW-SHOULDER, SHIFT BUTTON		
FRACTIONAL DIM. $\pm 1/64$				DRAWN KESH		DATE 2-29-62	SCALE 10:1	
ANGULAR DIM. $\pm 5^\circ$				SPEC. MIL-F-14072		DATE 1 FEB 63	DWG. NO. 1742-49	STAT
ALL DIMENSIONS GIVEN IN INCHES				FINISH E300		DATE 10-5-62	A	
		MATERIAL 303 STAINLESS STEEL		FINISH CLEAR PASSIVATED				
		SPEC. MIL-S-7720						
		COMP. 303S						

CLEARPRINT 1020.

Declassified in Part - Sanitized Copy Approved for Release 2014/03/05 : CIA-RDP78-03330A003300010001-9

REVISIONS		DWG. NO.	REV.
		1742-50	A
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE	F.S.	11/7/62



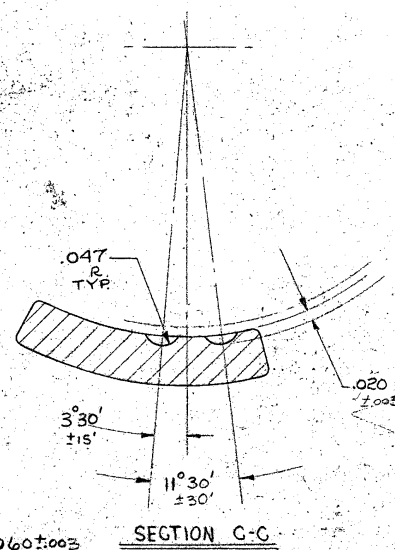
WORKING LENGTH = .110
 MAX. SOLID HEIGHT .070
 WIRE DIA. .010 ± .0005
 GROUND & SQUARE ENDS
 .088[#] LOAD AT WORK LENGTH

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT	
DECIMAL DIM.	± .005	1742-L2	1	NO. REQ'D.	1	SPRING - BALL DETENT, SHIFT BUTTON			
FRACTIONAL DIM.	± 1/64			DRAWN	100	DATE	9-24-62	SCALE	10:1
ANGULAR DIM.	± 5°					DATE	1 FEB 63	DWG. SIZE	A
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL	302 STAINLESS STEEL SPEC. SPRING TEMPER MIL-W-6713 COMP. B	FINISH	CLEAR PASSIVATE SPEC. MIL-F-14072 FINISH E 300	DWG. NO.	1742-50

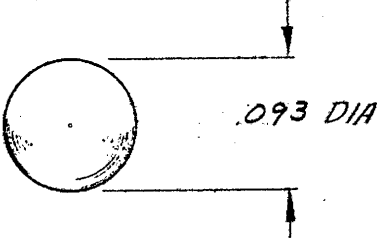
CLEARPRINT 1000H

PRODUCTION DRAWING CONTROL



UNITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000			M.O.		TITLE		STAT
TOLERANCES (UNLESS OTHERWISE SPECIFIED)			NEXT ASSY. NO. REQ'D		NO. REQ'D		
DECIMAL DIM. ± .005			1742-L2		1		
FRACTIONAL DIM. ± 1/64					SECTOR GEAR PINION		
ANGULAR DIM. ± 5°					DRAWN		
ALL DIMENSIONS GIVEN IN INCHES			MATERIAL SILICON BRONZE		DATE 5 AUG 62		STAT
			SPEC Q-Q-B-691		SCALE 4:1		
			CONF. 2		DATE 5 FEB 63		
			MIL-F-13924		DWG. NO. 1742-51		STAT
			CLASS I		B		

				DWG. NO.		REV.	
				1742-52			
REVISIONS							
SYM.	DESCRIPTION			BY	DATE		



.093 DIA

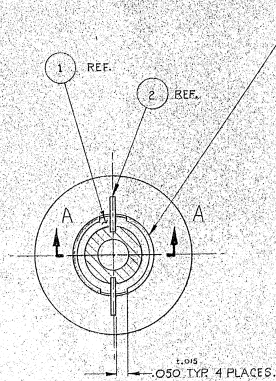
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL		FINISH		TITLE		STAT
DECIMAL DIM.	± .005	1742-L2	1	440 STAINLESS STEEL		CLEAR PASSIVATE		BALL-DETENT, SHIFT BUTTON		
FRACTIONAL DIM.	± 1/64			SPEC. 70Q-S-7630		SPEC. MIL-F-14072		DATE 7/21/62		
ANGULAR DIM.	± 5'			CLASS 10 TYPE A		FINISH E300		SCALE 10:1		
ALL DIMENSIONS GIVEN IN INCHES								DATE 1 FEB 63		
								DWG. NO. 1742-52		
								DATE 7-5-62		

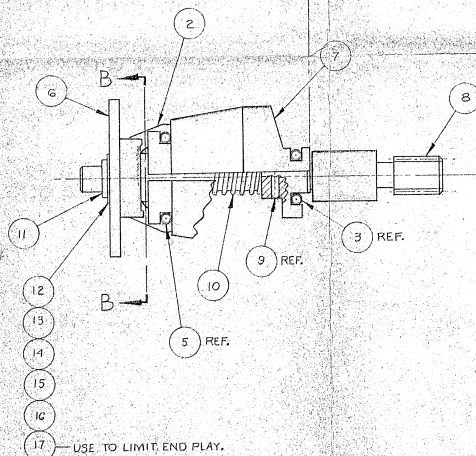
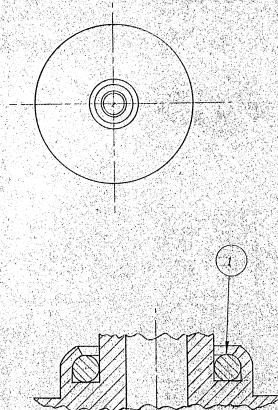
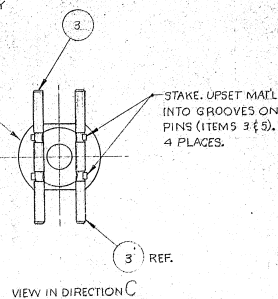
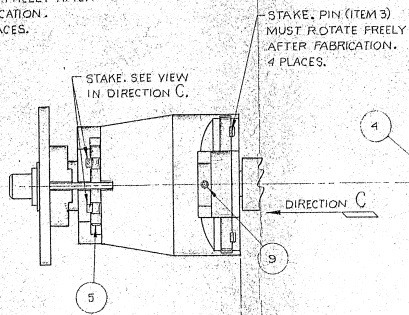
PRODUCTION DRAWING CONTROL DC

REV. NO. **C1742-53**

REV.	DESCRIPTION	BY	DATE
1	REDESIGNED, WAS 1/2 SIZE PER E.C. 3302		5-10-63



ROLL LIP OVER RING AS SHOWN IN SECTION AA. LINK (ITEM 2) MUST PIVOT FREELY AFTER FABRICATION. 2 PLACES.

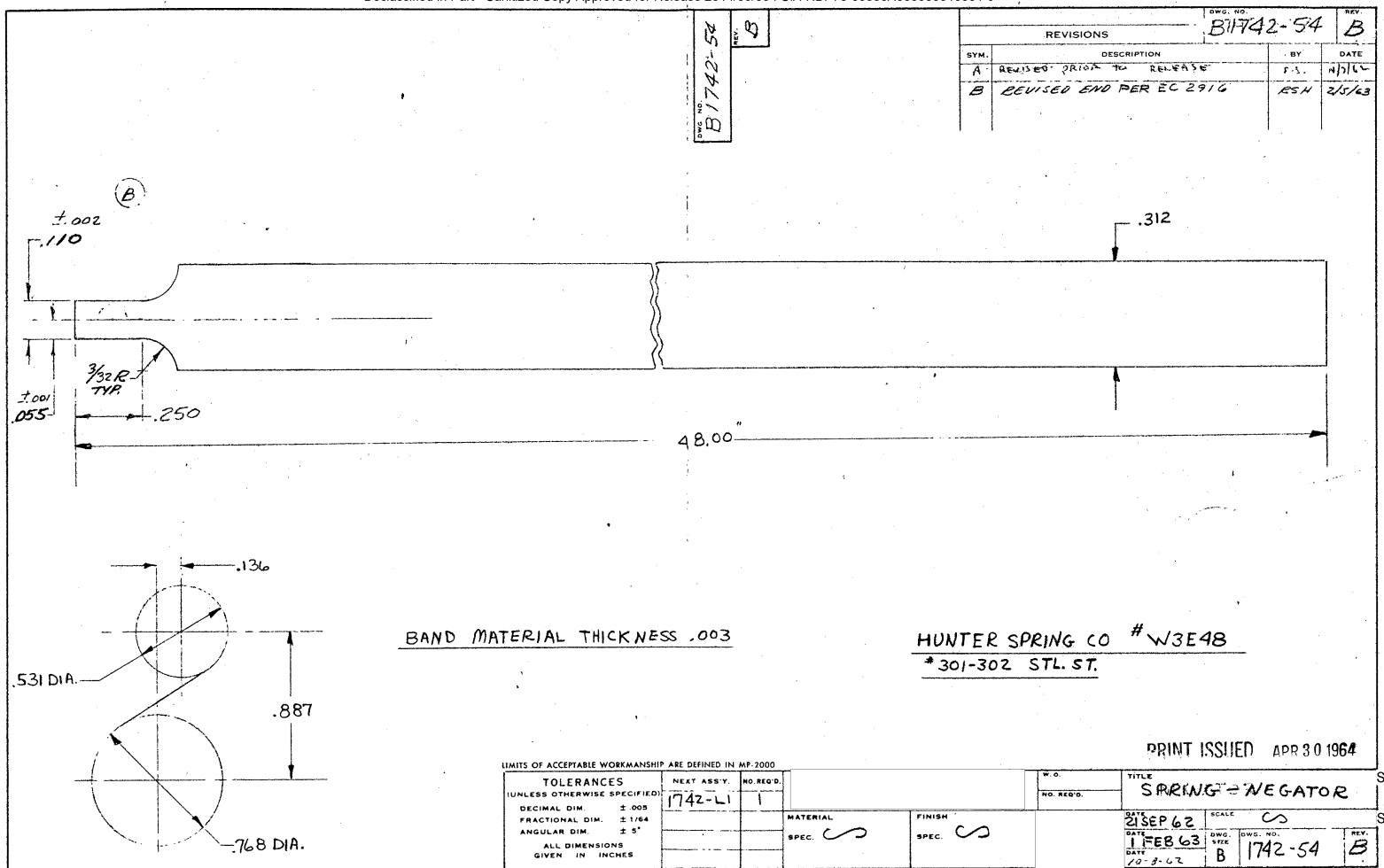
REV. NO. **C1742-53**REV. **B**

ITEM	PART NUMBER	DESCRIPTION
17	B1742-149-18	SHIM
16	B1742-149-17	SHIM
15	B1742-149-16	SHIM
14	B1742-149-15	SHIM
13	B1742-149-14	SHIM
12	B1742-149-13	SHIM
11	M316C33-4009	RING-RETAINING, 5133-9
10	A1742-156	SPRING-COMPRESSION, GOVERNOR
9	A1360-5-18	PIN-SPINDLE, 1/2 DIA. X 3/16 LG.
8	B1742-5	SHAFT-GOVERNOR
7	C1742-154	FLYWEIGHT-GOVERNOR
6	C1742-152	DISC-CLUTCH, GOVERNOR
5	A1742-151	PIN-LINK, GOVERNOR (SHORT)
4	B1742-157	HUB-PIVOT, GOVERNOR
3	A1742-150	PIN-LINK, GOVERNOR (LONG)
2	A1742-153	LINK-GOVERNOR
1	A1742-155	RING-GOVERNOR

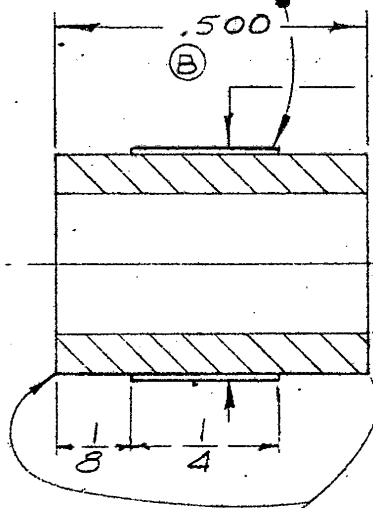
TOLERANCES UNLESS OTHERWISE SPECIFIED	
DECIMAL DIM.	± .005
FRACTIONAL DIM.	± .004
ANGULAR DIM.	± 5°
ALL DIMENSIONS GIVEN IN INCHES	

MATERIAL	FINISH
SPEC.	SPEC.

REV.	DESCRIPTION	BY	DATE
1	PRINT ISSUED		5-10-63



FINE PITCH (120 DP)
KNURL STRAIGHT
CLASS II TOLERANCE



.376-.377 DIA.
OVER KNURL

.242 DIA.

.375
.374

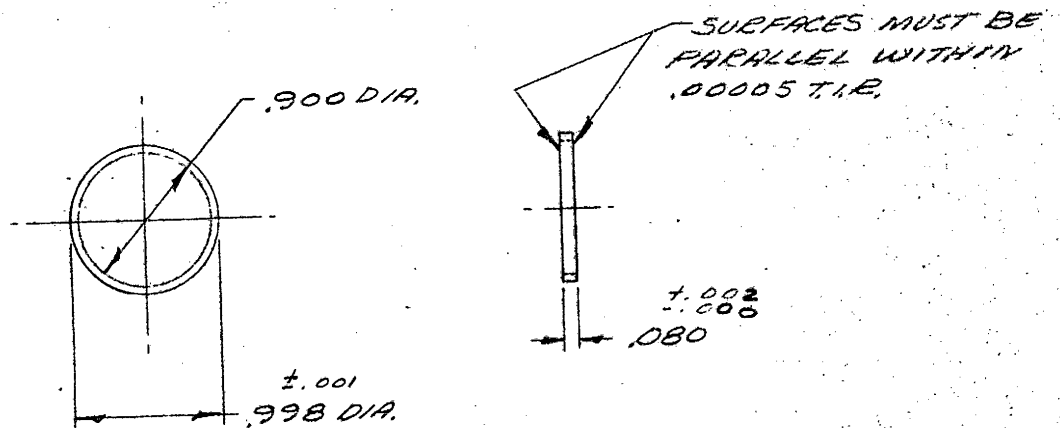
DIA BEFORE KNURL

REVISIONS		DWG. NO.	REV.
		1742-55	C
SYM.	DESCRIPTION	BY	DATE
A	REVISED BY PRODUCTION ENGINEERING PRIOR TO RELEASE	SPERRY	10/14/62
B	.500 WAS .525 PER E.C. 226B		
C	.376-.377 WAS .377-.378, EC4015	LT	11-4-63

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5'$ ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.	MATERIAL BRASS SPEC. 99-B-626 COMP. FULL 22 H400	FINISH SPEC. S	W.O.	TITLE		STAT
	1742-145	1			NO. REQ'D.	BUSHING -		
					1	EACK		
					DRAWN	DATE	SCALE	
					RSN	9/27/62	9:1	
						DATE	DWG. SIZE	DWG. NO.
						1 FEB 63	A	1742-55
						DATE		
						10-5-62		

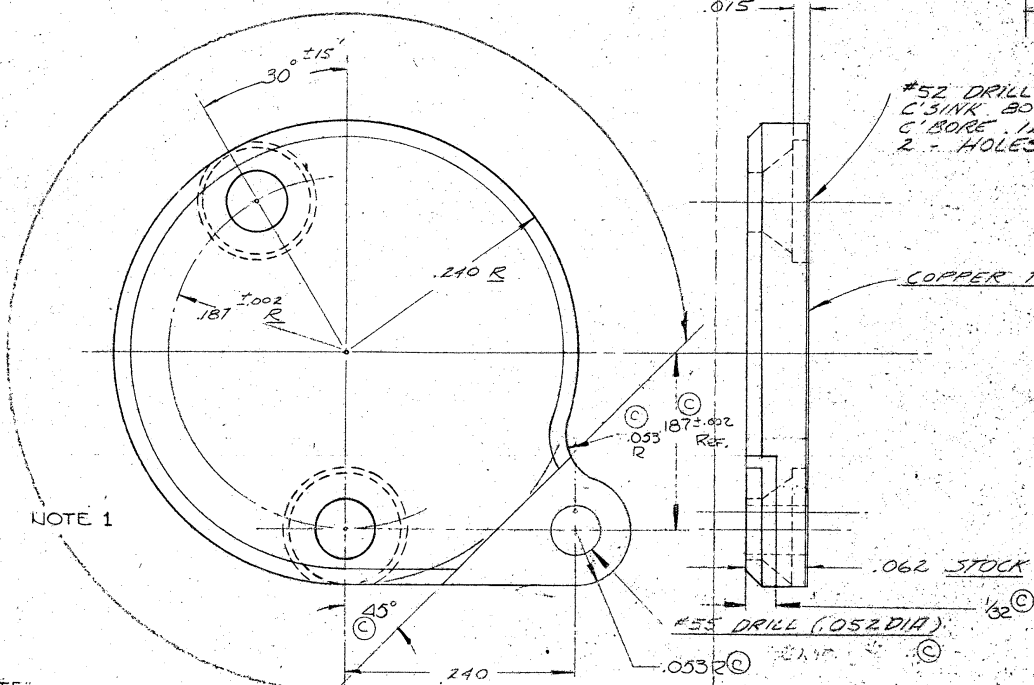
REVISIONS				REV.
				1742-56
SYM.	DESCRIPTION	BY	DATE	



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. ± .005 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 5° ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE: SPACER-BEARING		STAT
	1742-L1	1	NO. REQ'D.		OUTPUT SPOOL		
			DRAWN		DATE	SCALE	
					DATE	DWG. NO.	
			MATERIAL 303	FINISH	DATE	DWG. NO.	
			STAINLESS STEEL	CLEAR PASSIVATE	DATE	DWG. NO.	
			SPEC MIL-S-7720	SPEC. MIL-F-14072	DATE	DWG. NO.	
			COMP. 303S	FINISH E300	DATE	DWG. NO.	
					DATE	DWG. NO.	
					DATE	DWG. NO.	

REVISIONS		DWG. NO.	REV.
		1742-57	E
SYM.	DESCRIPTION	BY	DATE
A	REVISED PERIOD TO RELEASE		STAT
B	C'SINK .080 DIA 82° AWED, EC 2919		11/8-62
C	DWG. REVISED PER EC 2769		-10-63
D	MATL WAS 1/16 PLASTIC GLASS EPOXY MIL P. 1811 TYPE GEE PER EC 3470		6-27-63
E	ADDED NOTE 1 & REF. - EC 4571		3-26-64



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

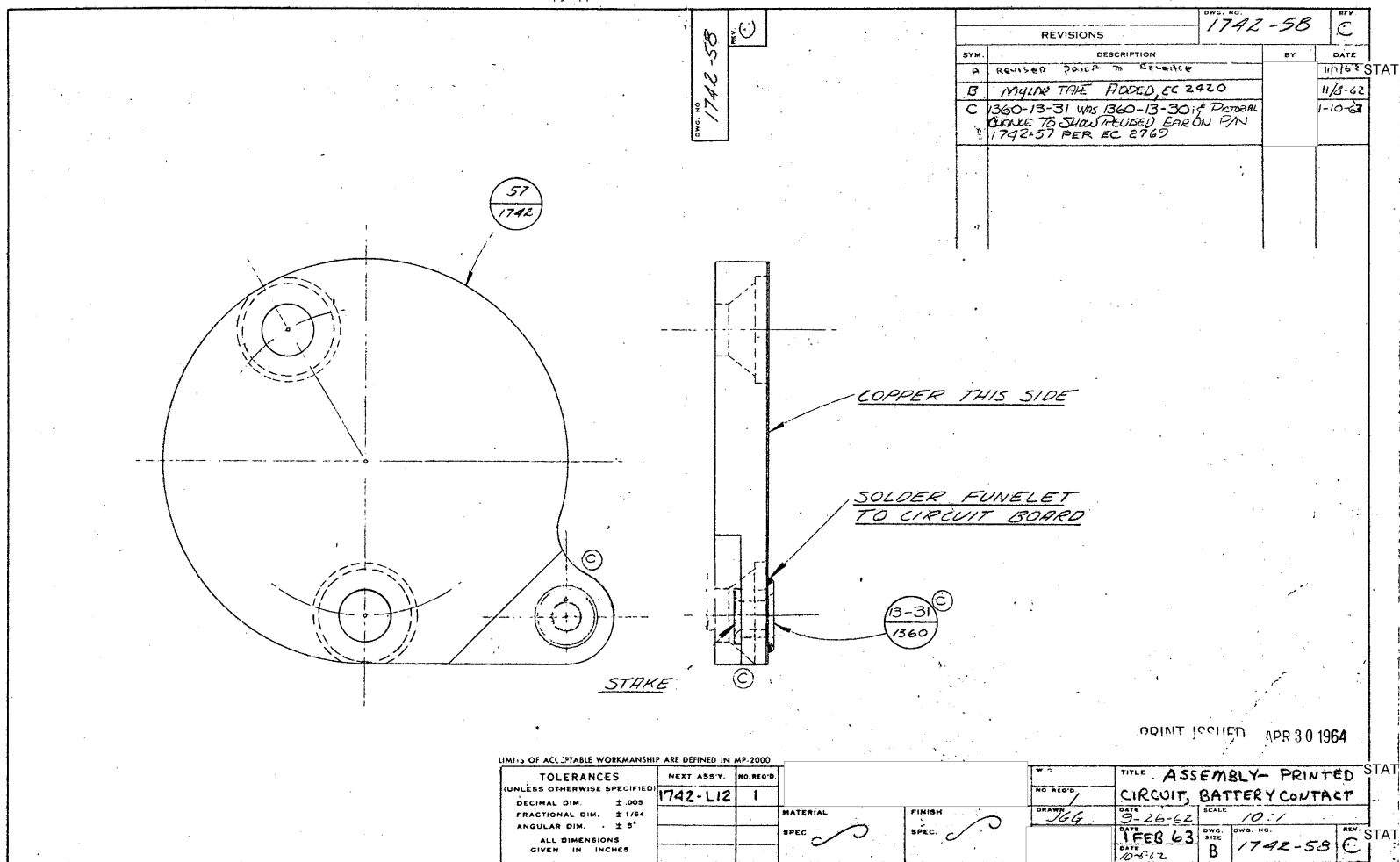
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. ± .005	1742-57	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5°		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL LAMINATED
PLASTIC SHEET, COPPER
CLAD
MIL P. 1811
TYPE REG. 6203/0

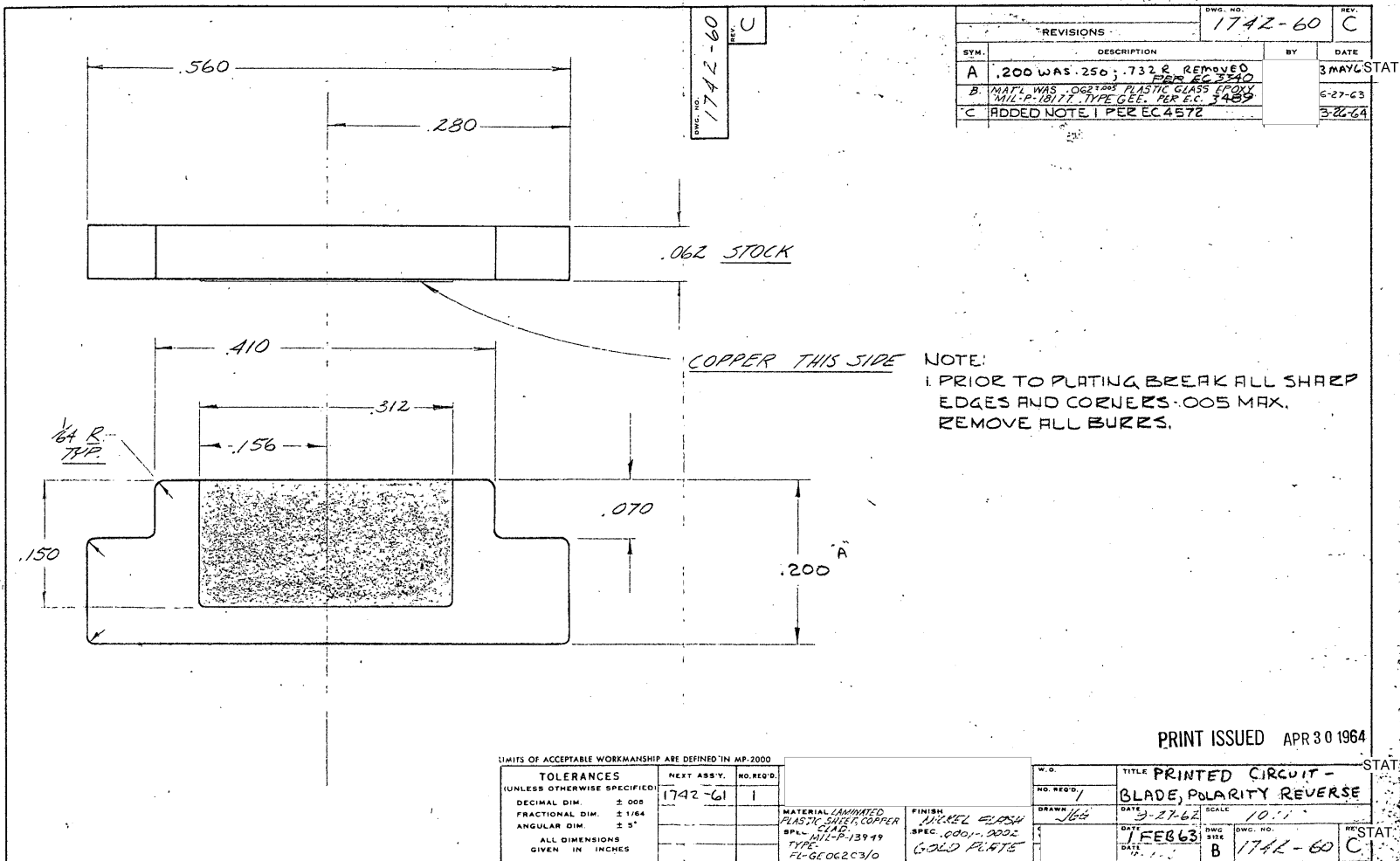
FINISH: NICKEL FLUSH
SPEC. 0001-0002
GOLD PLATE

W.D.
NO. REQ'D.
DATE
1 FEB 63
DATE
10-9-62

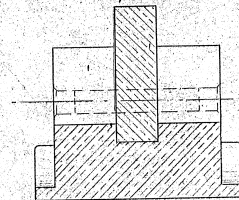
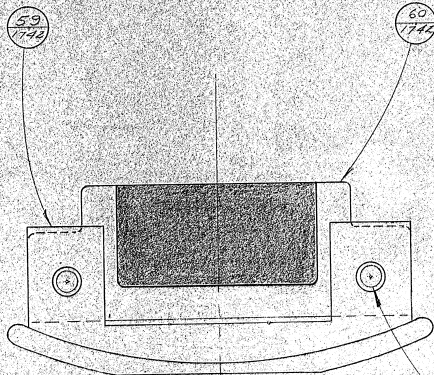
TITLE
PRINTED CIRCUIT
CONTACT BATTERY
SCALE
10:1
DWG. NO.
1742-57
REV.
E
STAT



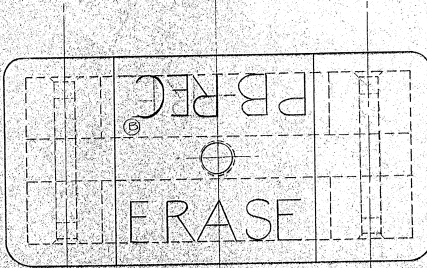
UNITS OF ACCEPTABLE WORKSMANSHIP ARE DEFINED IN MP-2000				OXIDE				TITLE		STAT
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO REQ'D	NO REQ'D		DRAWN	DATE	SCALE	DWG. NO.	REV
DECIMAL DIM.	± .005	1742-61	1			IT	6/5/63	4/1		
FRACTIONAL DIM.	± 1/64						6 JUN 63			
ANGULAR DIM.	± °									
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL SILICON BRONZE		FINISH BLACK OXIDE		DATE 6 JUN 63		REV B
				Q&B-691 COMP 2		MIL-1324 CLASS I		DWG. NO. 1742-59		STAT F



REVISIONS			
SYN.	DESCRIPTION	BY	DATE
A	REVISED: PRINTED CIRCUIT BOARD	RS	11/16/62
B	1360-518 WATTAGE FOR TUBE C PLUGED TO 120-66C PER EC 2785	WJH	1/10/63
C	PICTURE CHANGE EC 3357	WJ	5/15/63



ASSEM. PRINTED CIRCUIT AS SHOWN
 DRILL THRU CIRCUIT BOARD WITH #66 DRILL (.033 DIA.)
 PRESS FIT 2 SPIRAL PINS # 1360-5-13



DOC NO.
 1742-61

PRINT ISSUED APR 30 1963

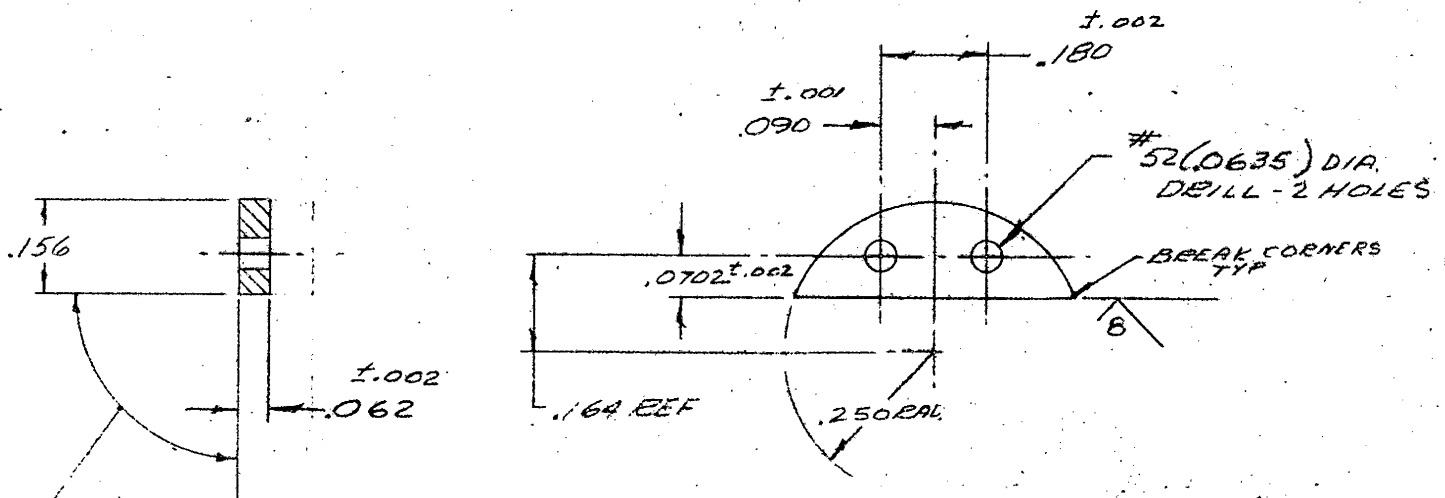
TOLERANCES		NEAT ASBY.	NO. REV.
DECIMAL DIM.	2.000		
FRACTIONAL DIM.	2.100		
ANGULAR DIM.	2.0		
ALL DIMENSIONS GIVEN IN INCHES			

MATERIAL		FINISH	
SPEC		SPEC	
SPEC		SPEC	
SPEC		SPEC	

TITLE		ASSEMBLY - SWITCH	
POLARITY REVERSE		POLARITY REVERSE	
REVISED		REVISED	
REVISED		REVISED	

PRODUCTION CONTROL

REVISIONS				DWG. NO.	REV.
				1742-62	B
SYM.	DESCRIPTION	BY	DATE		
A	REVISED PRIOR TO RELEASE	F.S.	11/7/62		
B	REV MAT'L PER EC 3766	LT	9-23-62		



THESE SURFACES TO BE
SQUARE WITHIN .001 T.I.R.

NOTE:

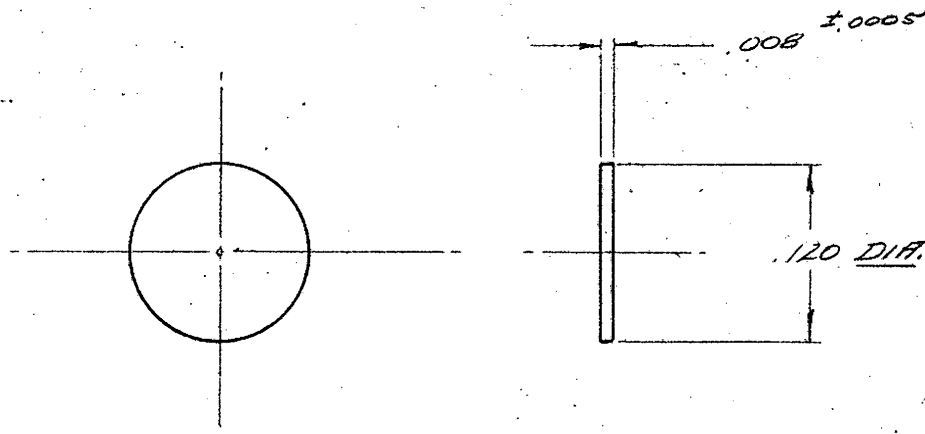
HARDEN TO ROCKWELL C 40-45
DRAW TO ROCKWELL C 39-40

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)				NEXT ASS'Y.	NO. REQ'D.	W.D.		TITLE				STAT
DECIMAL DIM. ± .005				1742-L2	1	NO. REQ'D.		STOP - BACK				
FRACTIONAL DIM. ± 1/64						DRAWN		DATE		SCALE		
ANGULAR DIM. ± 5°						ESH		3/16/62		4:1		
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL 410 STAINLESS STEEL	FINISH CLEAR PASSIVATS	SPEC. QQ-S-766		DATE		DWG. RIZE	DWG. NO.	STAT
				COMP 410 COND A	MIL-F-14072	FINISA E 300		9 FEB 63		A	1742-62	B
								DATE				
								10 5 63				

CLEARPRINT 1000H

REVISIONS		DWG. NO.	REV.
		1742-63	B
SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE	STAT	7/6
B	MATL WAS MIL-S-7720, COND. B PER E.C. 3642		8/19/63

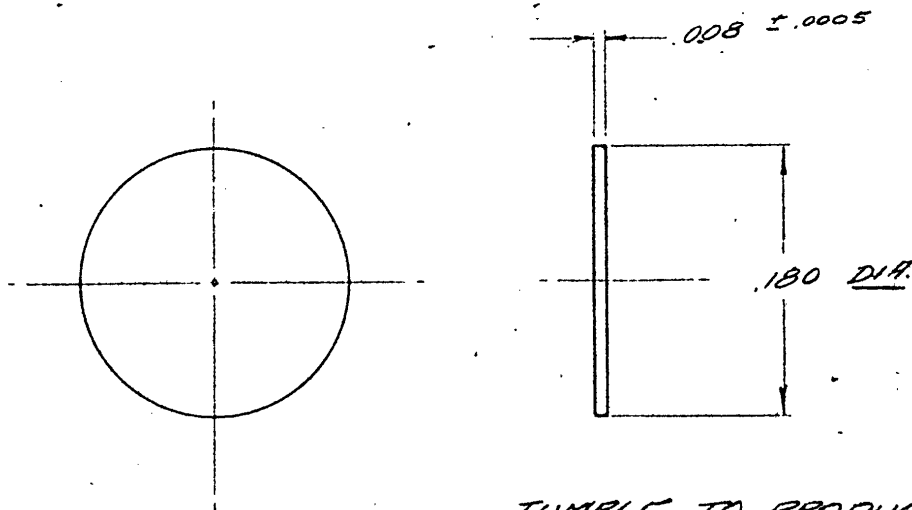


TUMBLE TO PRODUCE SMOOTH
FINISH ON FLAT SURFACES

UNITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	DATE	SCALE	DWG. NO.	REV.
DECIMAL DIM. ± .005	1742-L2	1	302	CLEAR PASSIVATE	9-28-62	10:11	1742-63	B
FRACTIONAL DIM. ± 1/64			STAINLESS STEEL		4 FEB 63			
ANGULAR DIM. ± 5'			SPEC MIL-S-5057	SPEC. MIL-F-14072	DATE 10-1-63			
ALL DIMENSIONS GIVEN IN INCHES			COND. 1A HARD	FINISH E300				
			COMP. 302					

REVISIONS				DWG. NO.	REV.
				1742-64	B
SYM.	DESCRIPTION	BY	DATE		
A	REVISED PRIOR TO RELEASE		11/7/63	STAT	
B	NATZ WAS MIL-S-1720, COND. B PER E.C. 3642		2/19/63		



TUMBLE TO PRODUCE SMOOTH
FINISH ON FLAT SURFACES

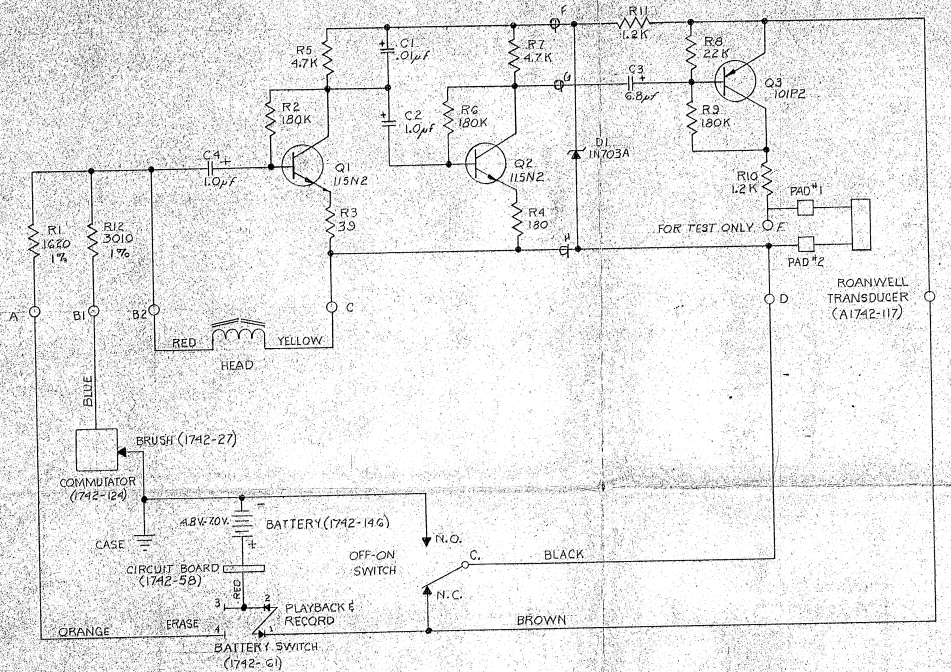
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	W.O.	TITLE	DATE	SCALE	DWG. NO.	STAT
DECIMAL DIM.	± .005	1742-L2	1	302	CLEAR PASSIVATE	NO. REQ'D.	DISC - BEARING, SECTOR	3-28-62	10:1	1742-64	B
FRACTIONAL DIM.	± 1/64			STAINLESS STEEL	SPEC. MIL-F-14072	DRAWN	GEAR SPRING (LARGE)	4 FEB 63	A		
ANGULAR DIM.	± 5'			REC MIL-S-5059	FINISH E300			DATE 10-5-62			
ALL DIMENSIONS GIVEN IN INCHES				COND 1/4 HARD							
				COMP 302							

CLEARPRINT 1020

PRODUCTION DRAWING CONTROL

REVISIONS	
SYM.	DESCRIPTION
1	REDRAWN & REDESIGNED, WAY "B" SIZE
2	REVISED



1742-65
D

PRINT ISSUED - MAY 1 1964

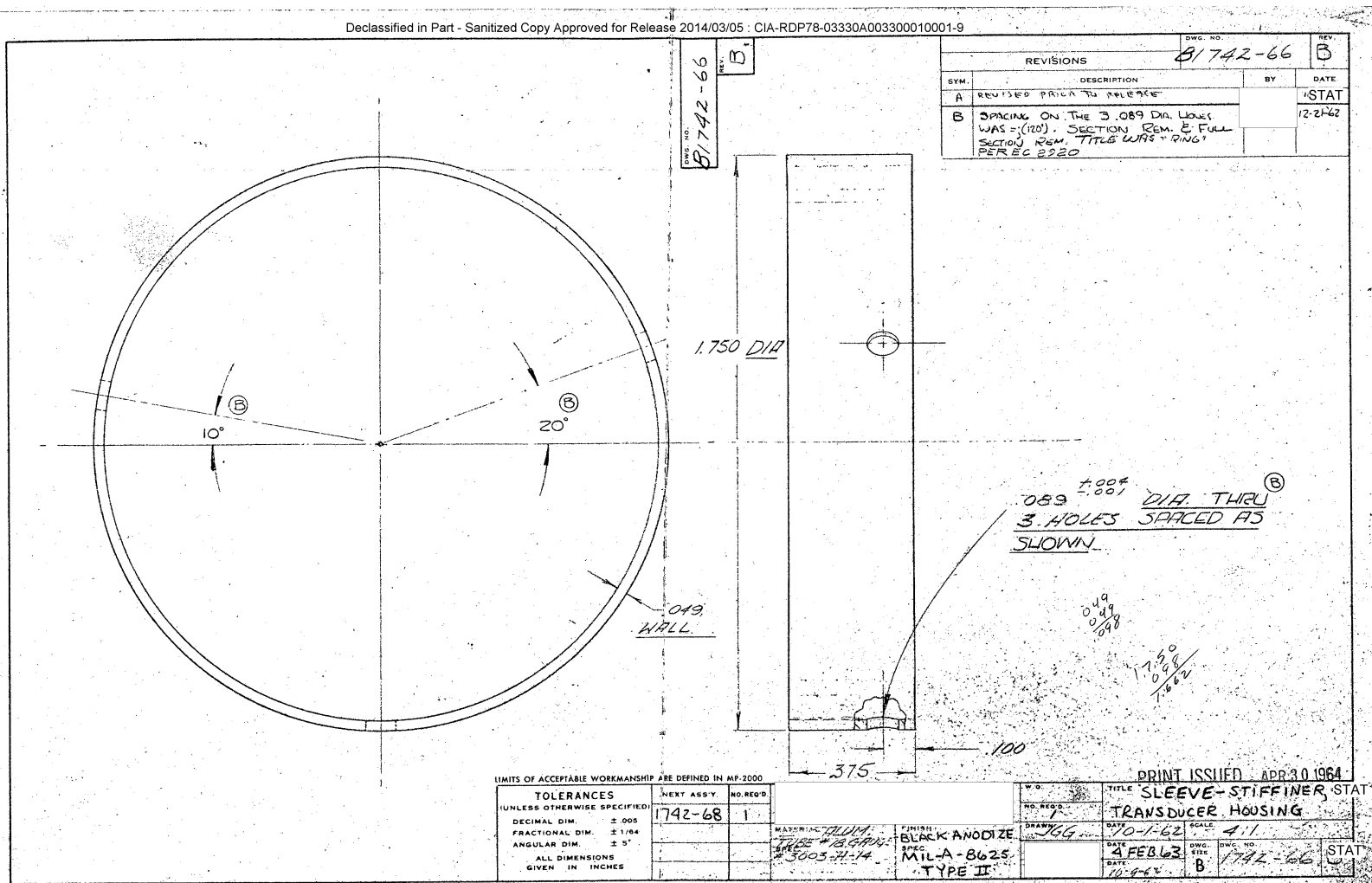
ITEM	PART NUMBER	QTY	DESCRIPTION
1	1742-5B	1	SCHEMATIC
2	1742-65	1	SCHEMATIC
3	1742-65	1	SCHEMATIC
4	1742-65	1	SCHEMATIC
5	1742-65	1	SCHEMATIC
6	1742-65	1	SCHEMATIC
7	1742-65	1	SCHEMATIC
8	1742-65	1	SCHEMATIC
9	1742-65	1	SCHEMATIC
10	1742-65	1	SCHEMATIC

TOLERANCES	UNLESS OTHERWISE SPECIFIED
ORIGINAL DIM.	± .005
FRACTIONAL DIM.	± .005
ANGULAR DIM.	± .5°
ALL DIMENSIONS	GIVEN IN INCHES

STAT

STAT

STAT



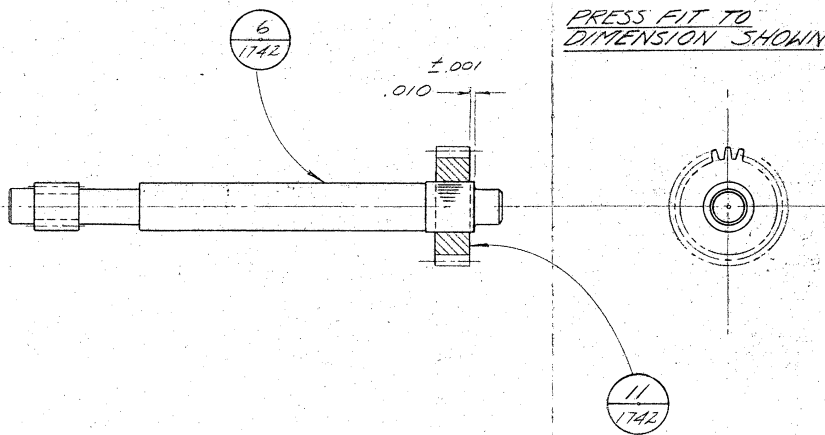
DWG. NO.
1742-67

REV.

REVISIONS			
SYM.		DESCRIPTION	DATE
BY			

DWG. NO.
1742-67

REV.

PRESS FIT TO
DIMENSION SHOWN

PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

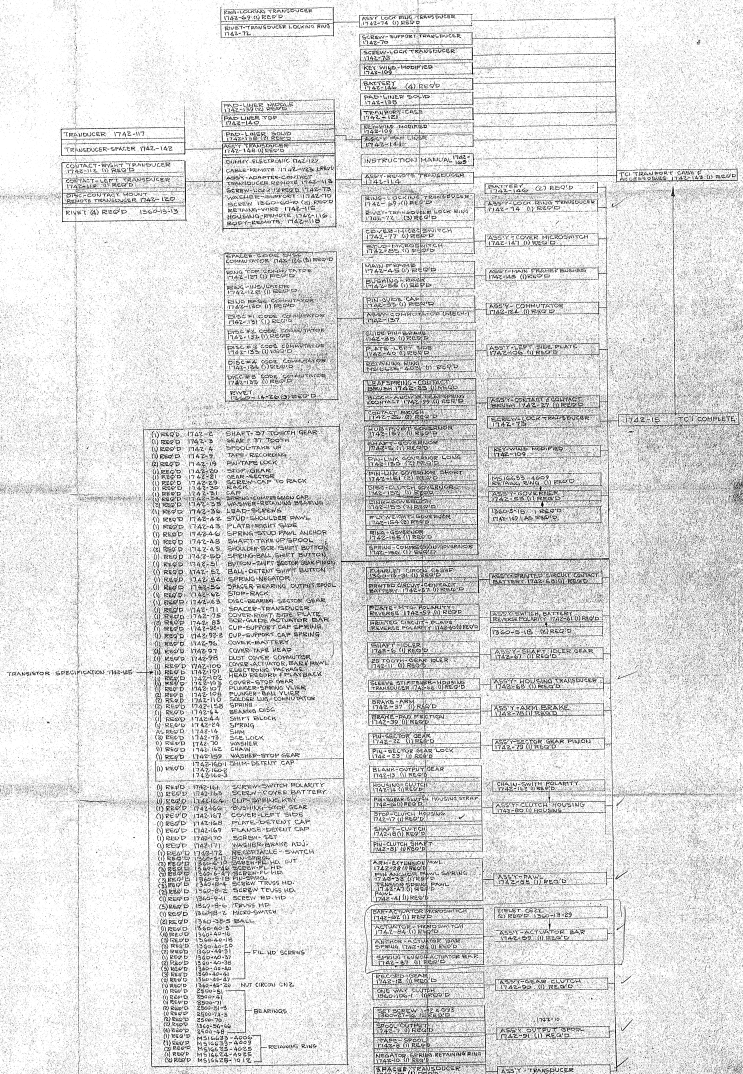
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1742-L1	1
FRACTIONAL DIM. $\pm 1/64$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL	FINISH
SPEC.	SPEC.

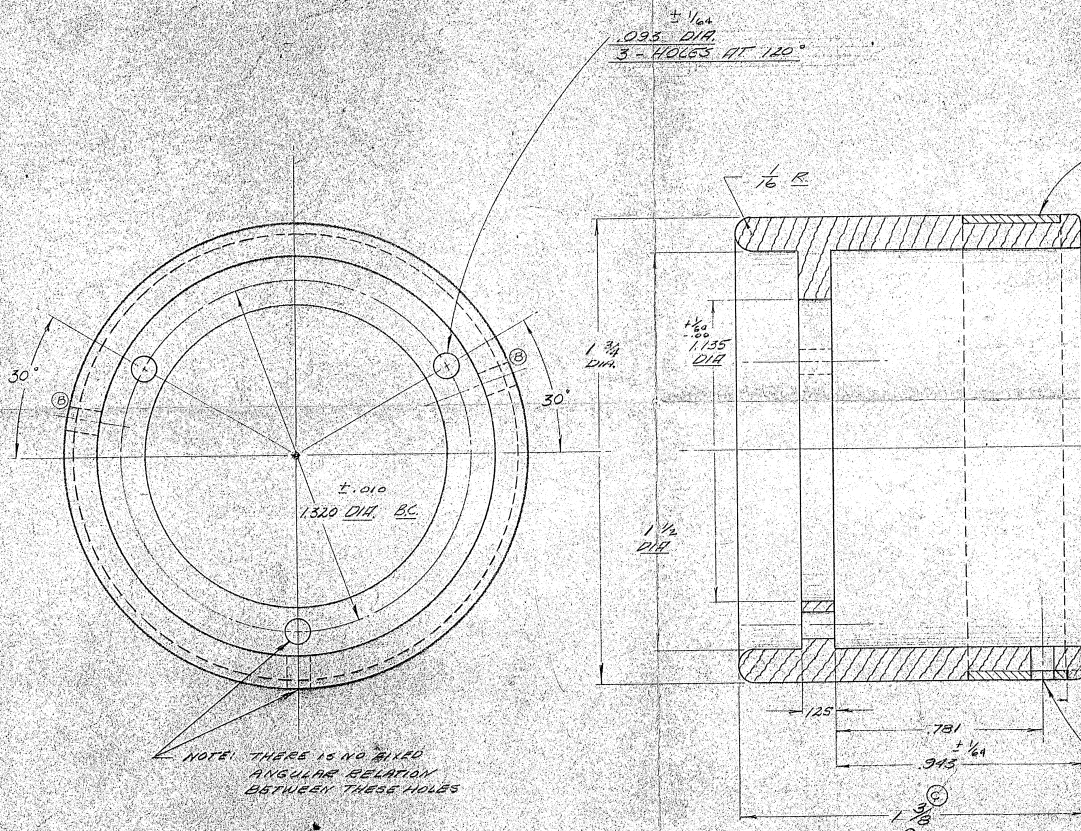
W.O.	TITLE
NO. REQ'D.	ASSEMBLY - SHAFT IDLER GEAR
DRAWN	DATE
DATE	SCALE
DATE	DATE
DATE	DATE

DATE	DATE	DATE	DATE
4 FEB 63	10-8-62	1742-67	1742-67
DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE

TC-1 FLOW CHART



REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	ADDITIONAL PARTS TO BE REVIEWED	RS	11/16/66
B	NOTE CHANGED DUE TO CHANGE IN SURFACE OF CASE (CEN. HOLE) DUE TO VIBRATION	CLD	12/26/66
C	WAS 1 5/16 DIA. FROM DC 2715	R.S.H.	2-14-68



LIMITS OF ACCEPTABLE WORKMANSHIP ARE GIVEN IN INCHES			
TOLERANCES	MAX. ABS. T.	MIN. ABS. T.	REMARKS
DECIMAL DIM. 3.000	1742-L1		
FRACTIONAL DIM. 2.100			
ANGULAR DIM. 2.2°			
ALL DIMENSIONS GIVEN IN INCHES			

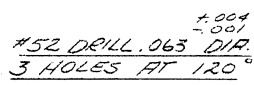
BLACK
600 P

ASSEMBLY - HOUSING, TRANSDUCER			
REV.	DESCRIPTION	BY	DATE
1	1742-L1		4/1
2	1742-L2		4/1
3	1742-L3		4/1
4	1742-L4		4/1
5	1742-L5		4/1
6	1742-L6		4/1
7	1742-L7		4/1
8	1742-L8		4/1
9	1742-L9		4/1
10	1742-L10		4/1

PRODUCTION DRAWING CONTROL

STAT

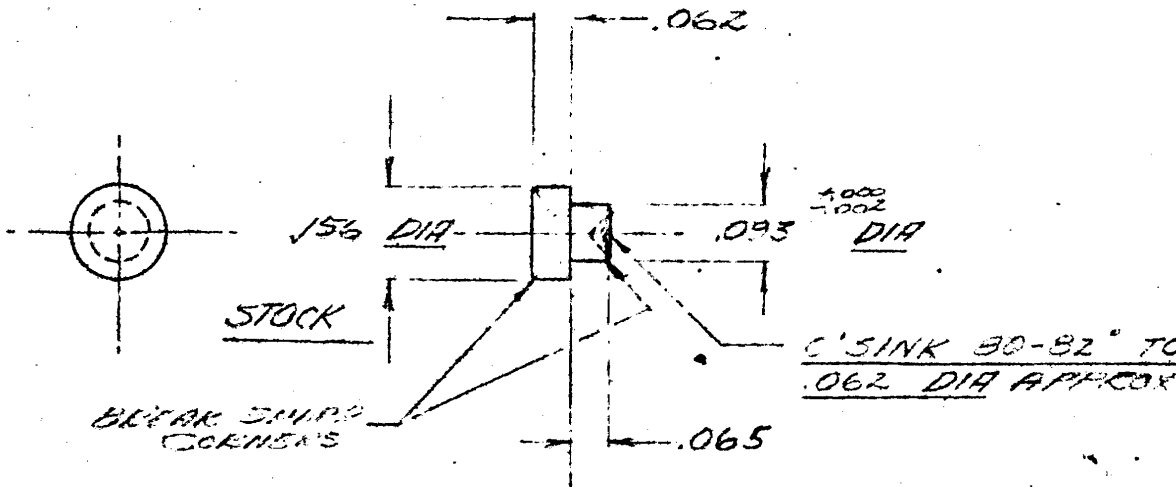
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SYM.	DESCRIPTION	BY	DATE
A	REVISED PRIOR TO RELEASE		10/17
B	RED ARROW ADDED. PER #C 2919		1-19-63

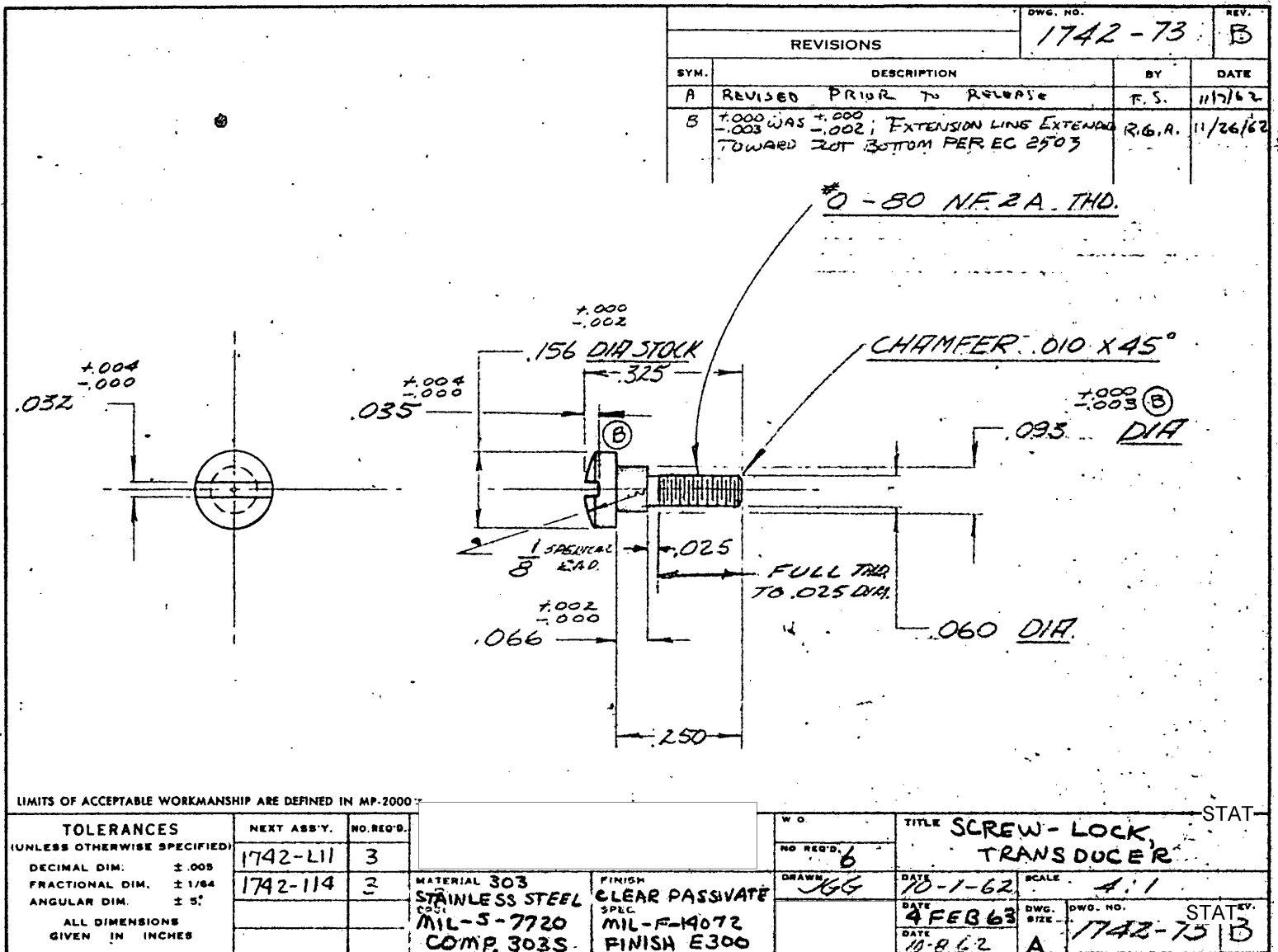
UNITS OF ACCEPTABLE WORKSMANSHIP ARE DEFINED IN MP-2000						W O		TITLE		STAT	
TOLERANCES (UNLESS OTHERWISE SPECIFIED):		NEXT ASSY.	NO REQ D			NO REQ D		WASHER-SUPPORT TRANSDUCER			
DECIMAL DIM. $\pm .005$		1742-L11				DRAWN		DATE		SCALE	
FRACTIONAL DIM. $\pm 1/64$		1742-114	1	MATERIAL: S302 STAINLESS STEEL		FINISH: CLEAR PASSIVATED		10-1-62		4:1	
ANGULAR DIM. $\pm 5^\circ$				MIL-S-7720 COMP.S02,C0ND,B		MIL-F-14072 FINISH E300		DATE 4 FEB 63		DWG. NO. 1742-10	
ALL DIMENSIONS GIVEN IN INCHES								DATE 11-7-62		STAT REV. B	

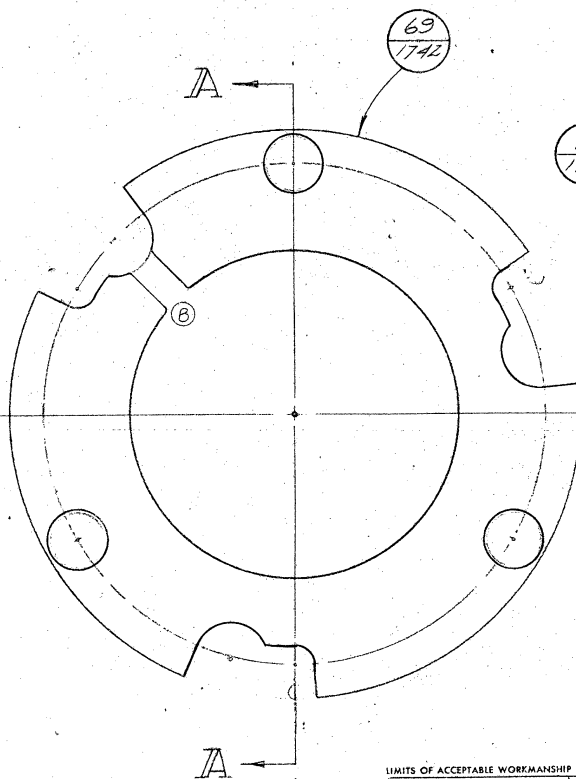
REVISIONS		DWG. NO.	REV.
		1742-72	A
SYM.	DESCRIPTION		
A	REVISED PRIOR TO RELEASE		



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MF.2000				STAT
TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. ± .005 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 5° ALL DIMENSIONS GIVEN IN INCHES	NEXT ASSY 1742-74	NO. REQ'D. 3		
		MATERIAL BRASS SPL. QQ-C-252 COND 14H COND 22	FINISH BLACK OXIDE MIL-F-13924 CLASS I	DRAWN 166
		TITLE RIVET-TRANSDUCER LOCK RING		DATE 10-1-62
		DATE 9 FEB 63		SCALE 4:1
		DATE 10-5-62		DWG. NO. 1742-72
		DATE 10-5-62		REV. A

STAT





STAKE FLUSH OR UNDER
3 - PLACES.

SECTION A-A

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LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

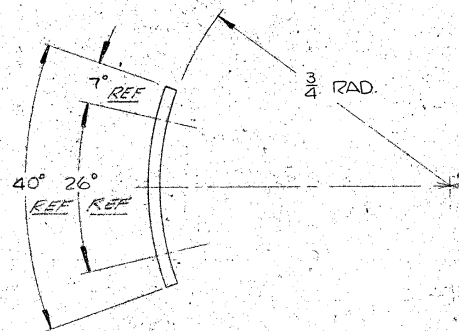
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1742-111	1
FRACTIONAL DIM. $\pm 1/64$	1742-114	1
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL	FINISH
S	S
SPEC	SPEC.

W.O.	TITLE	STAT.
NO. REQ'D. 2	ASSEMBLY- LOCKING TRANSDUCER	
DRAWN 186	DATE 10-1-62	SCALE 4:1
CHECKED 4 FEB 63	DWG. NO. B	REV. 13
DATE 10-8-62		

PRODUCTION DRAWING CONTROL

	W.O.	TITLE	STAT
	NO. REQ'D.	COVER- RIGHT SIDE PLATE	
	DATE	DATE	SCALE
ACK-ANODIZE	R.G. ANGLER	10-1-62	4:1
A-8625		DATE	DWG. NO.
TYPE II		4-FEB63	SIZE
		DATE	
		10-1-62	B
			1742-75
			D



TUMBLE TO REMOVE BURRS

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TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM.	$\pm .005$
FRACTIONAL DIM.	$\pm 1/64$
ANGULAR DIM.	$\pm 1^\circ$

ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASS'Y.	NO. REQ'D
1742- LI	1

MATERIAL 5052
ALUMINUM
SPEC
QQ-A-318
5052-52-14-12

FINISH
BLACK ANODI
SPEC.
MIL-A-8625
TYPE II

W. O.
NO. REQ'D.
DRAWN
R. G. AUGUR

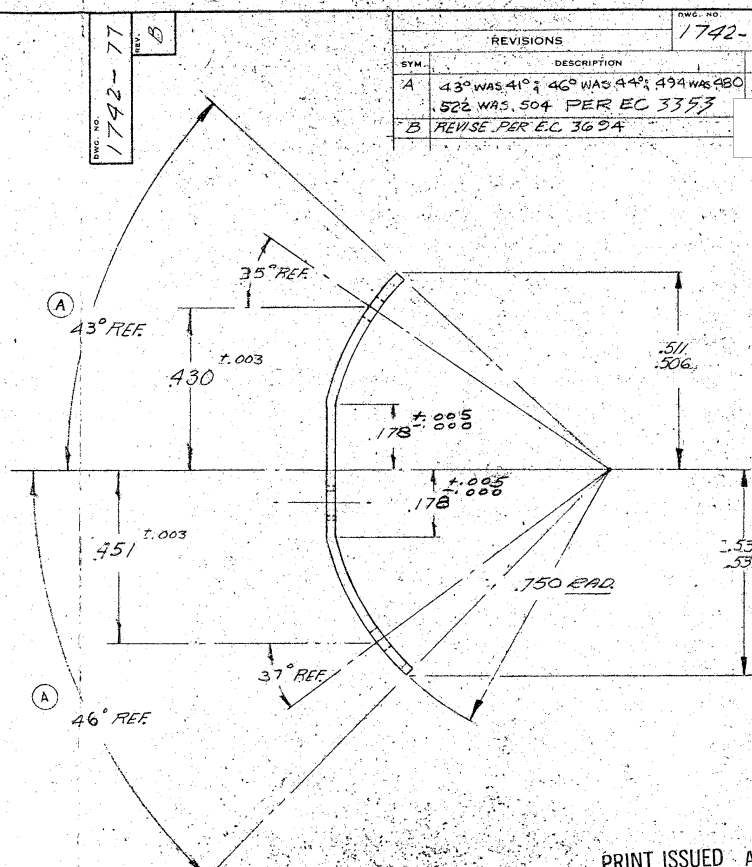
TITLE	COVER-R
DATE	10-1-62
DATE	4-FEB 63
DATE	10-1-62

RIGHT SIDE	
SCALE	4:1
DWG. SIZE	DWG. NO.
B	1742

STAT
DE PLATE
-75 D S

PRODUCTION DRAWING CONTROL

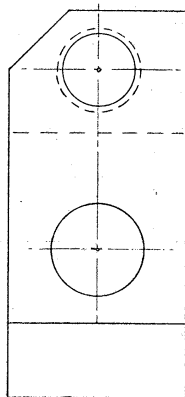
DC.



		DWG. NO.	REV.
REVISIONS		1742-77	B
SYM.	DESCRIPTION	BY	DATE
A	13° WAS 41°; 46° WAS 44°; 494 WAS 480 522 WAS 504 PER EC 3353	JT	5/16/63
B	REVIS. PER E.C. 3694		9/30/63

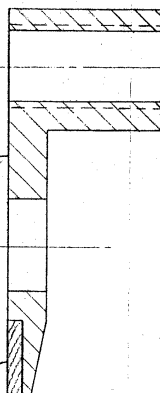
PRINT ISSUED APR 30 1964

UNLESS OTHERWISE SPECIFIED:				W.D.		TITLE		STAT	
DECIMAL DIM. $\pm .005$				NO. REQ'D		COVER - MICROSWITCH			
FRACTIONAL DIM. $\pm 1/64$				DRAWN		DATE		SCALE	
ANGULAR DIM. $\pm 5^\circ$				MATERIAL		DATE		SCALE	
ALL DIMENSIONS GIVEN IN INCHES				FINISH		DATE		SCALE	
				SPEC		DATE		SCALE	
				Q&A-A-318		DATE		SCALE	
				COMP. S052-0000		DATE		SCALE	
				BLACK ANODIZE		DATE		SCALE	
				MIL-A-8625		DATE		SCALE	
				TYPE II		DATE		SCALE	



37
1742

39
1742



BOND WITH EC 826
3M BRAND

DWG. NO.
1742-78

REV.
A

REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	REV PICTORIALY PER EC 3825	LT	10-4-63

DWG. NO.
1742-78

REV.
A

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LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1742-13	1
FRACTIONAL DIM. $\pm 1/64$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

W.O.	NO. REQ'D.
166	

TITLE	SCALE	DATE	DWG. NO.	STAT.
ASSEMBLY- BRAKE ARM	10:1	4-FEB-63	1742-78	A

DWG. NO. 1742-79		REV. B	DWG. NO. 1742-79		REV. B
REVISIONS					
SYM.	DESCRIPTION	BY	DATE	STAT	
A	ADDED NOTE PER EC 3746			3-13-64	
B	.027-.023 WAS .026-.024 EC 4513				

22
1742

.027-.023

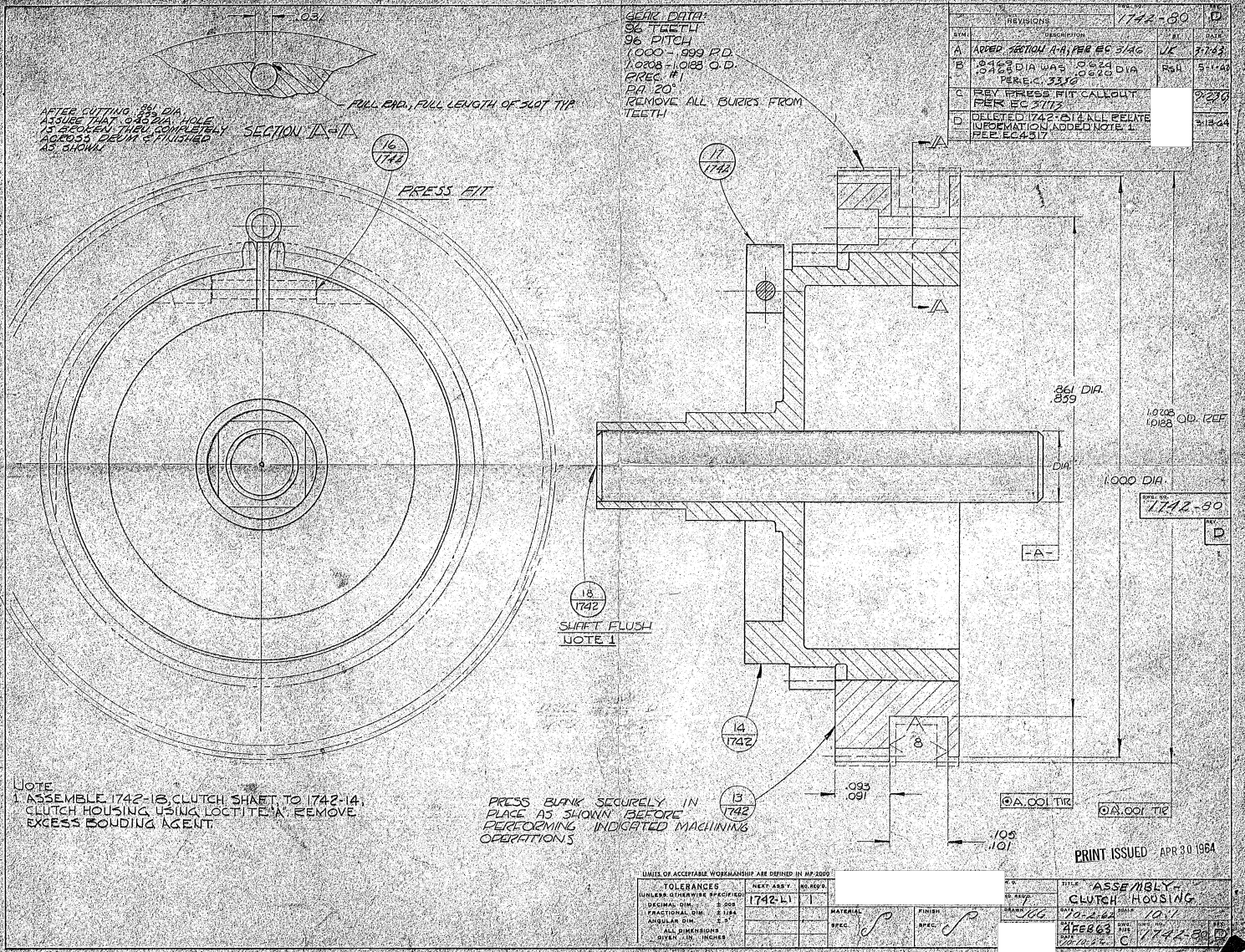
PRESS FIT

23
1742

A
NO DEFORMATION OF DIA.
ALLOWED AS A RESULT OF
PRESSING OPERATION.

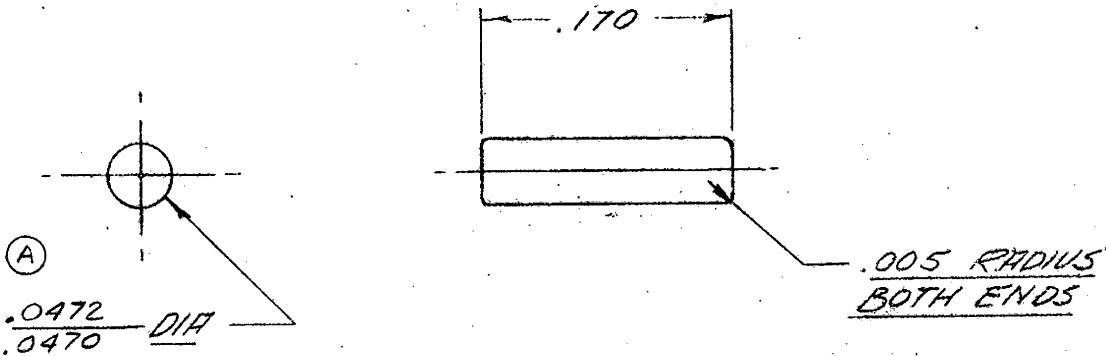
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000					
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY 1742-L2	NO. REQ'D. 1	MATERIAL SPEC	FINISH SPEC.
DECIMAL DIM. ± .005					
FRACTIONAL DIM. ± 1/64					
ANGULAR DIM. ± 5°					
ALL DIMENSIONS GIVEN IN INCHES					

W. O.		TITLE		STAT	
NO. REQ'D. 1		ASSEMBLY- SECTOR GEAR PINION		STAT	
DRAWN JGG	DATE 10-2-62	SCALE 10:1			
CHECKED	DATE 4 FEB 63	DWG. NO. 1742-STAT3			
	DATE 10-2-62	REV. B			



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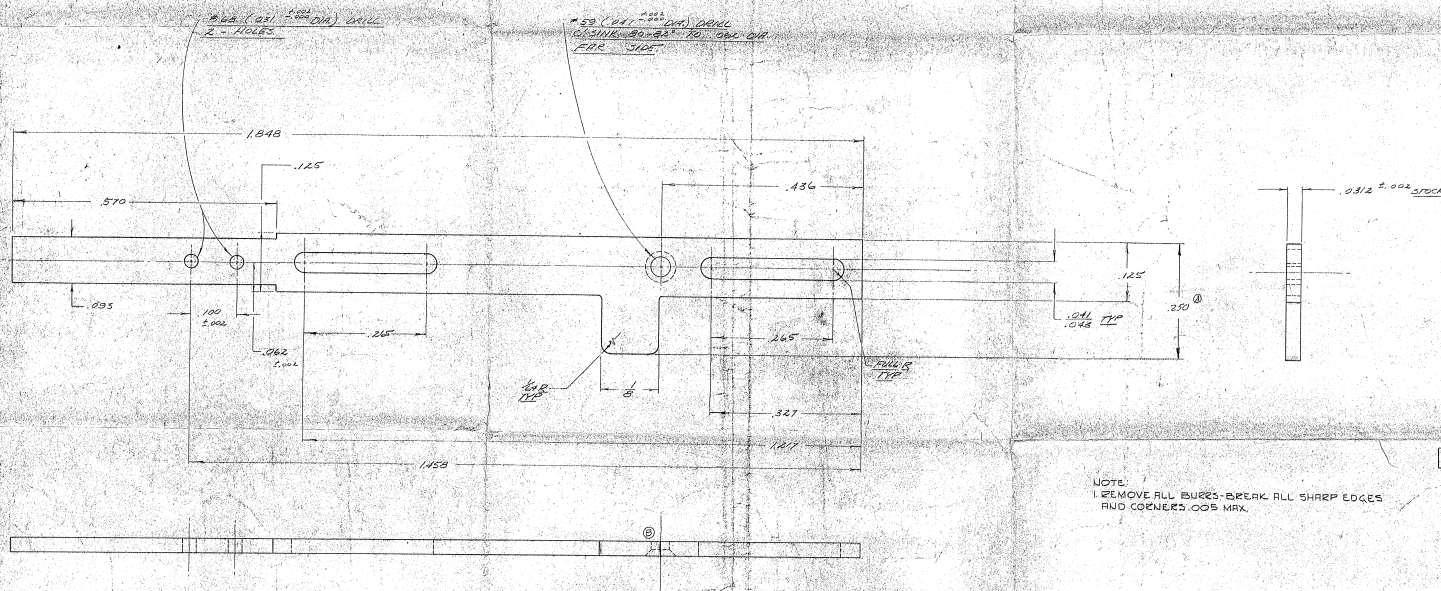
174703705 : CIA-RDP78-03330A003300010001-9		DWG. NO.		REV.	
		1742-81		A	
REVISIONS					
SYM.	DESCRIPTION			BY	DATE
A	:0472 DIA WAS :0626 DIA :0470 DIA WAS :0624 DIA & REMOVED PIC PART NO AB-2 PER E.C. 3325				4-30-57



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000				W.O.		TITLE		STAT	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.			PIN-CLUTCH SHAFT			
		1742-80	1			NO. REQ'D.			
						DRAWN			
DECIMAL DIM. ± .005				MATERIAL 303		DATE 10-3-62		SCALE 10:1	
FRACTIONAL DIM. ± 1/64				STAINLESS STEEL		FINISH CLEAR PASSIVATE			
ANGULAR DIM. ± 5°				SPEC. MIL-S-7720		DATE 9 FEB 63		DWG. SIZE A	
ALL DIMENSIONS GIVEN IN INCHES				COMP 303S		FINISH E 300		DWG. NO. 1742-81	
								STAT A	

CLEARPRINT 1020

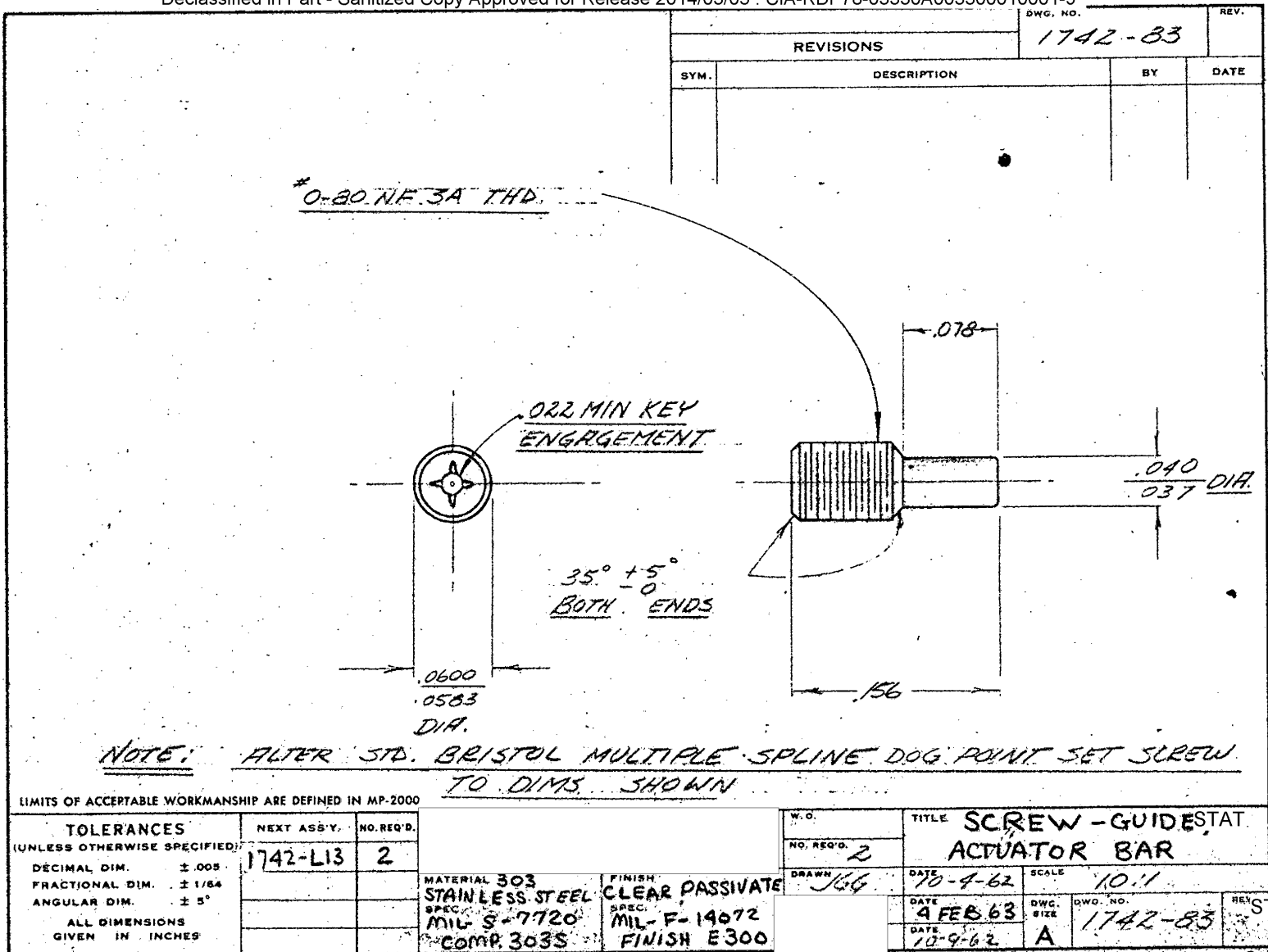
Declassified in Part - Sanitized Copy Approved for Release 2014/03/05 : CIA-RDP78-03330A003300010001-9

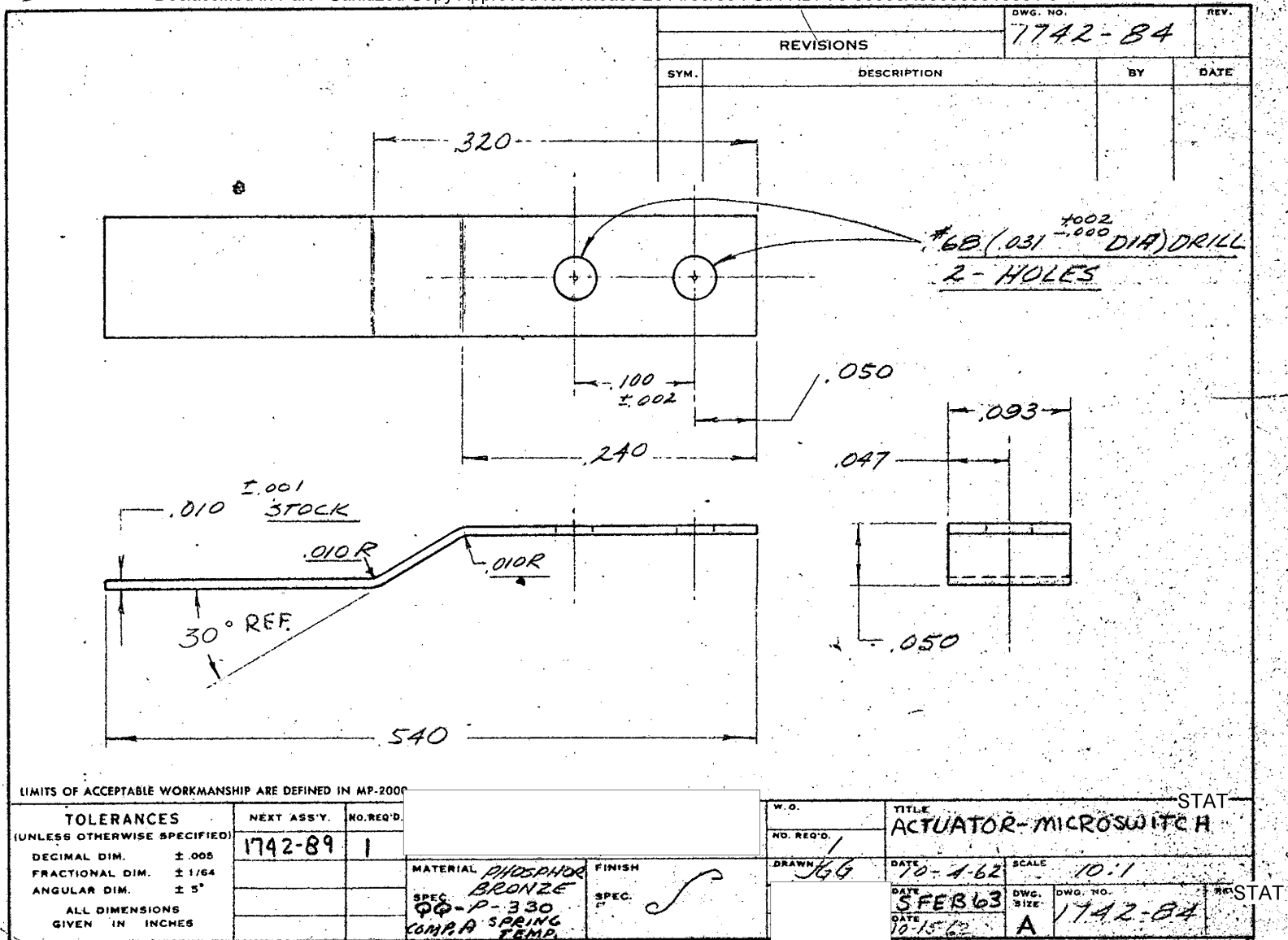


NOTE:
1. REMOVE ALL BURRS-BREAK ALL SHARP EDGES
AND CORNERS .005 MAX.

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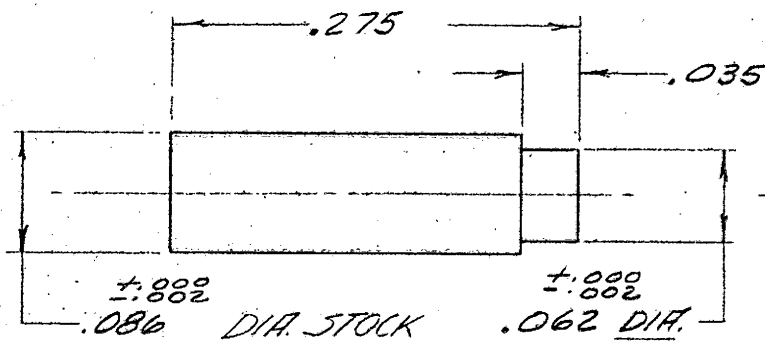
[illegible]





DWG. NO.		REV.	
1742-85		A	
REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	ADDED .005 MAX. DIM. EC4511		STAT-64

BREAK SHARP EDGES.
CORNERS - .005 MAX.



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y	NO. REQ'D	W.O.		TITLE		STAT	
DECIMAL DIM.	± .005	1742-147	1	NO. REQ'D		STUD - MICROSWITCH			
FRACTIONAL DIM.	± 1/64			DRAWN		DATE		SCALE	
ANGULAR DIM.	± 5°			JG		10-10-62		10:1	
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL		DATE		DWG. NO.	
				F.C. BEASS		5 FEB 63		1742-85	
				SPEC. PP-B-626		DATE		DWG. SIZE	
				COMP. 22 COND. 1/4		10-15-62		A	
				FINISH		DATE		REV.	
				SPEC. 2		10-15-62		A	

CLEARPRINT 1020

REVISIONS				DWG. NO.	REV.
SYM.	DESCRIPTION	BY	DATE		
				1742-86	

±.002

.040 DIA.

.062 DIA. STOCK

.010 x 45° CHAMFER

.035

.020

±.002

.040

.035

.120

C/SINK 80-82° TO .030 DIA.

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM. ±.005

FRACTIONAL DIM. ± 1/64

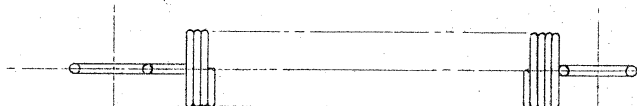
ANGULAR DIM. ± 5°

ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH
1742-89	1	88955	
		SPEC QQ-8-626	SPEC.
		COMP. 22 COND. 1/4	

W.O.	TITLE ANCHOR - ACTUAL STAT		
NO. REG'D.	BAR SPRING		
DRAWN <i>169</i>	DATE <i>10-3-62</i>	SCALE <i>10:1</i>	
	DATE <i>5 FEB 63</i>	DWG. SIZE <i>A</i>	DWG. NO. <i>1742-86</i>
	DATE <i>10-13-62</i>		STAT REV.

PRODUCTION DRAWING CONTROL DC



		DWG. NO.	REV.
REVISIONS		1742-87	
SYM.	DESCRIPTION	BY	DATE

520 ASSEMBLED LENGTH
LOAD AT ASSEMBLED LENGTH
785 EXTENDED LENGTH
LOAD AT EXTENDED LENGTH
.078 MAX. G.D.
.010 - .011 DIA. WIRE
LOOPS ON CENTER ≠ PARALLEL

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM.	± .005
FRACTIONAL DIM.	± 1/64
ANGULAR DIM.	± 5°

ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASS'Y.	NO. REQ'D
1742-89	1

MATERIAL 302
STAINLESS STEEL
SPEC.
MIL-W-6713
COMP. B

FINISH
CLEAR PASSIVAT
SPEC
MIL-F-14072
FINISH E300

W.O.	
NO. REQ'D.	1
DRAWN	JGG

TITLE		CITY	
SPRING - TENSION, ACTUATOR BAR			
DATE	SCALE		
10-5-62	10:11		
DATE	DWG. NO.	REV	
4 FEB 63		S	
DATE	DWG. SIZE		
10-9-62	B	1742-87	

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STAT

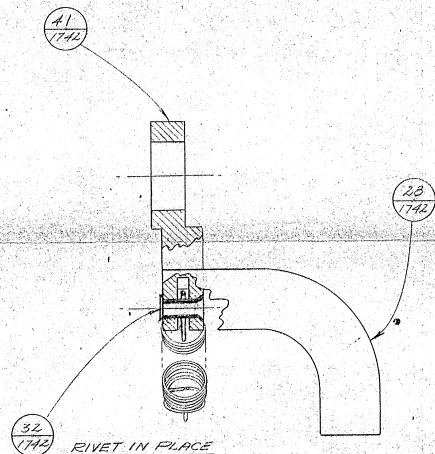
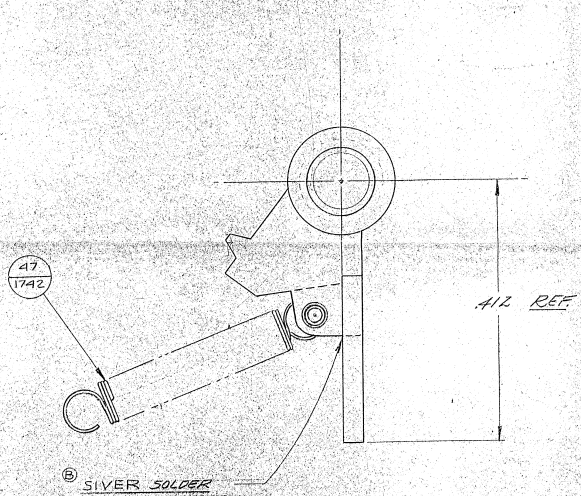
SPRING - TENSION,
ACTUATOR BAR

DATE 10-5-62	SCALE 10:1		
DATE 4 FEB 63	DWG. SIZE	DWG. NO. 1742-87	REV S
DATE 10-9-62	B		

PRODUCTION DRAWING CONTROL

De

REVISIONS			
BY	DESCRIPTION	BY	DATE
A	ADDED PART 1742-17, CHANGED "PROD. FIT" TO "FORM. IF NECESSARY TO RIVET IN PLACE" PER EC 3337	LT	8-2-63
B	REV. 307 TO SILVER PER EC 3748	LT	9-16-63
C	REV. 1742-18 PICTORIALY PER EC 4019	LT	11-6-63



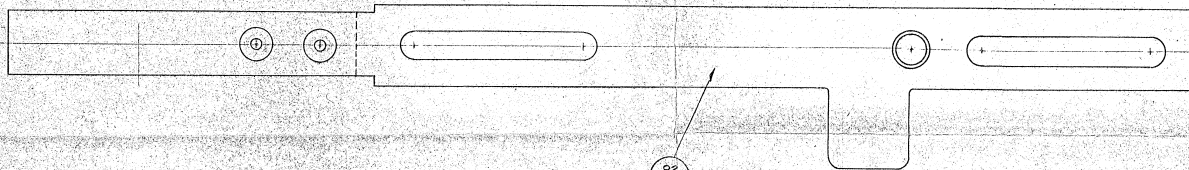
1742-88
C

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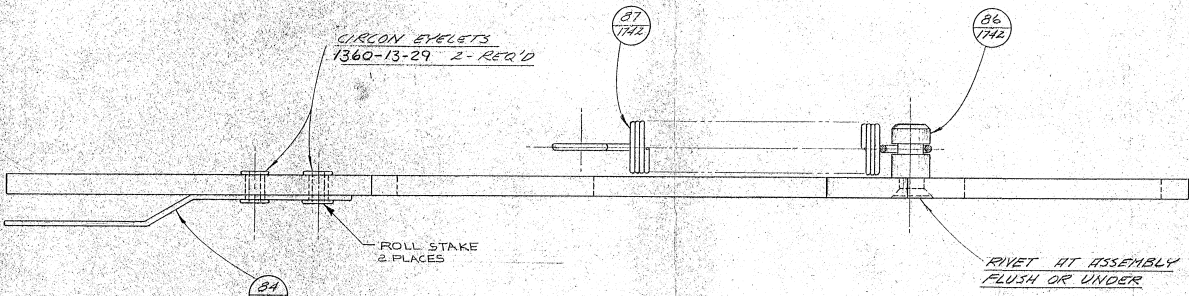
LIMITS OF ACCEPTABLE WORKMANSHIP ARE GIVEN IN NF-2000			
TOLERANCES	NEST ASST.	NO. REV.	W.C.
UNLESS OTHERWISE SPECIFIED	1742-L13	1	1742
DECIMAL DIM. ± .001			
FRACTIONAL DIM. ± 1/64			
ANGULAR DIM. ± 1°			
ALL DIMENSIONS GIVEN IN INCHES			
MATERIAL			
SPEC.			
FINISH			
SPEC.			
TITLE ASSEMBLY-PAWL			
REV. 1742-18			
SPEC. 1742-18			
REV. 1742-18			
C 1742-88			

PRODUCTION DRAWING CONTROL

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	1742-89	A	
A	ADDED STAKING CALLOUT PER EC 3821	LT	10-15-63



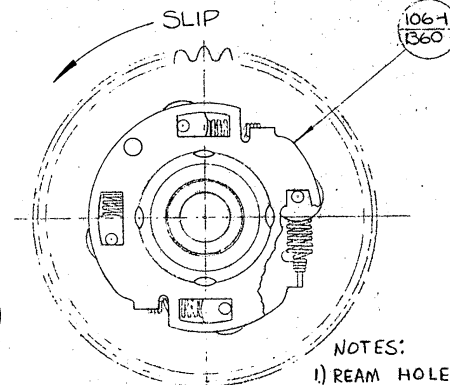
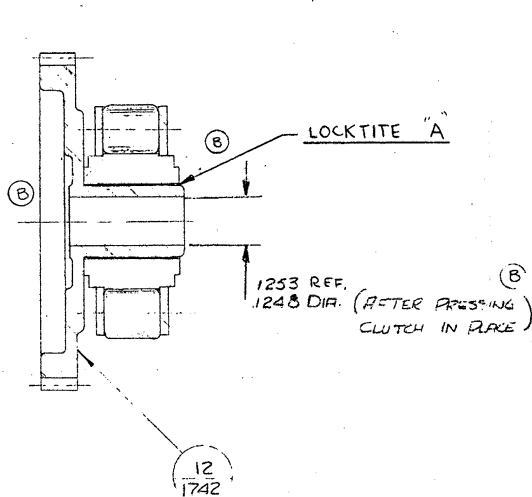
REV. NO. 1742-89
REV. A



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN HP-2000		PRINT ISSUED APR 30 1964	
TOLERANCES UNLESS OTHERWISE SPECIFIED: DECIMAL DIM. ± .009 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 5° ALL DIMENSIONS GIVEN IN INCHES		NEXT ASSY. NO. 1742-118 MATERIAL S SPEC S	TITLE ASSEMBLY - ACTUATOR BAR DRAWN 100 CHECKED 100 SCALE 10:1 REV. 1742-89 C 1742-89

STAT
STAT

REVISIONS				DWG. NO.	REV.
				1742-90	C
SYM.	DESCRIPTION	BY	DATE		
A	REVISED PULL-IN RELEASE	E.S.	11/1/62		
B	1253 REF. CALL OUT ADDED V RATED 3 PAGES, PER EC 2910		11-8-62		
C	NOTES CHANGED, EC 3360		11-10-63		



NOTES:

- 1) REAM HOLE IN CLUTCH IF NECESSARY TO .1885-.1883 DIA.
- 2) PRESS CLUTCH SECURELY ONTO GEAR AS SHOWN NOTING DIRECTION IN WHICH CLUTCH IS MOUNTED SLIPPAGE MUST OCCUR IN DIRECTION INDICATED.
3. USE LOCKTITE "A" WHEN PRESS FITTING.

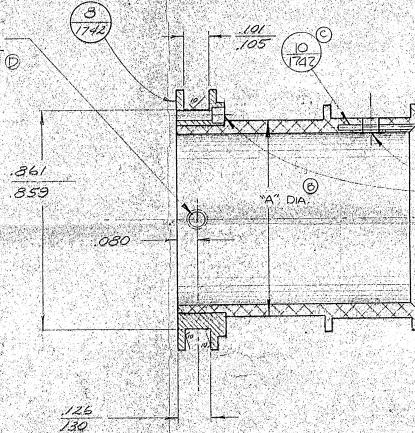
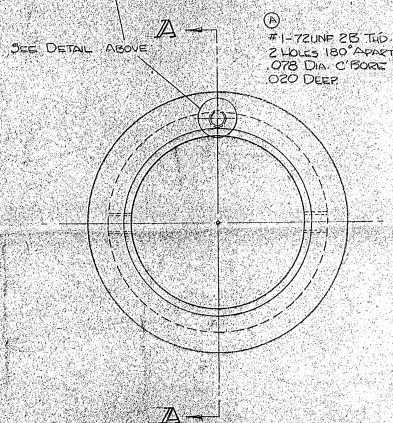
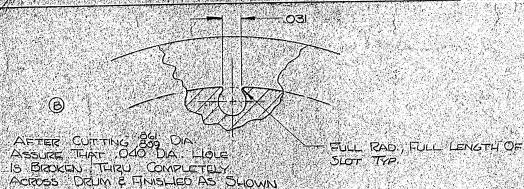
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. ± .005	1742-L1	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5'		
ALL DIMENSIONS GIVEN IN INCHES		

NO. REQ'D.	DATE	SCALE	STAT
7	10-3-62	4:1	STAT
	4 FEB 63		
	10-5-62		

TITLE	DWG. NO.	REV.
ASSEMBLY-RECORD GEAR AND CLUTCH	1742-90	C

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PUNCH STAKE PIN 1742-10 IN PLACE

AS SHOWN, PIN MUST BE BELOW SURFACE OF CHAMFER.

TO BE ALIGNED WITHIN $\pm 5^\circ$

NOTES ① FASTEN TAPE SPOOL TO OUTPUT SPOOL WITH #1-72 X 3/32 LRG (#1360-27-16) 2-REQD. SET SCREWS SPACED AS SHOWN.

② MACHINE TAPE SPOOL TO DIMENSIONS
SHOWN CONCENTRIC WITH SPOOL DIA. "A" (P)
WITHIN $\pm .0005$

SECTION A-A

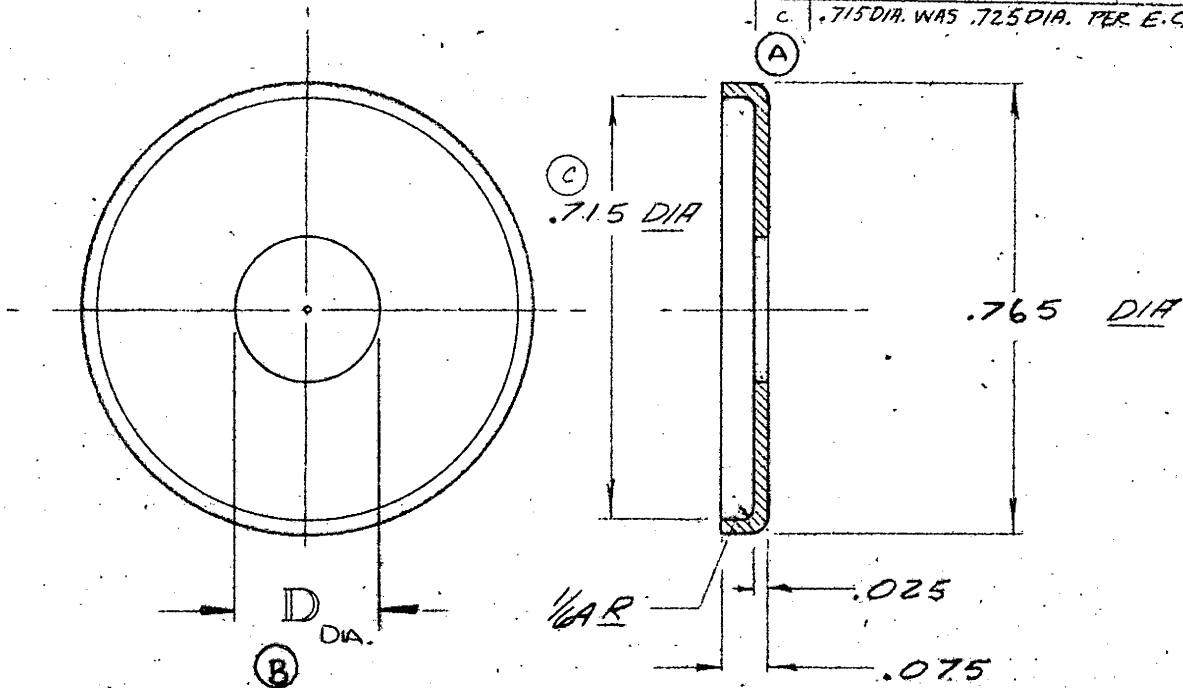
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[illegible]

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PART No.	D	No. Rec'd	NEXT ASS'Y
1742-92-1	250 ^{+0.002} _{-0.000}	1	1742-L2
-92-2	505 ^{+0.005} _{-0.000}	1	1742-L2

		DWG. NO.	REV.
		1742 - 92	C
REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	250 ^{+.002} _{-.000} DIA. WAS 250 ^{+.001} _{-.000} DIA. RAD. SHOWN, STOCK CHANGED TO FLAT STOCK EC 2623		11-9-68
B	WAS 1742-92. NOW 1742-92-1 & -2, -1. WAS OLD DWG. PER EC 2521		11-29-62
C	.715 DIA. WAS .725 DIA. PER E.C. 3631		7/11/63



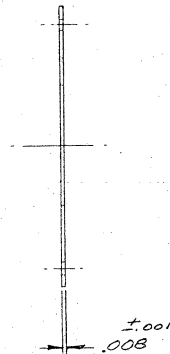
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT
DECIMAL DIM. ± .005		1742-L2	1 EA	NO. REQ'D. LEACH		CUP-SUPPORT CAP SPRING		
FRACTIONAL DIM. ± 1/64				DRAWN		DATE	SCALE	
ANGULAR DIM. ± 5°				MATERIAL 302 STAINLESS STEEL		18-10-62	4:1	
ALL DIMENSIONS GIVEN IN INCHES				FINISH CLEAR PASSIVATE SPEC. MIL-S-7720 MIL-F-14072 FINISH E300		DATE FEB 63	DWG. NO. 1742-96	STAT
				COMP 302 COND-B		DATE 12-15-62	DWG. NO. A	STAT

CLEARPRINT 1020

Declassified in Part - Sanitized Copy Approved for Release 2014/03/05 : CIA-RDP78-03330A003300010001-9

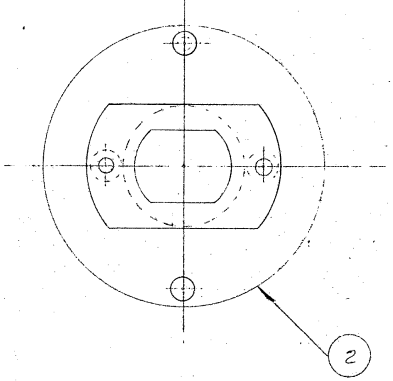
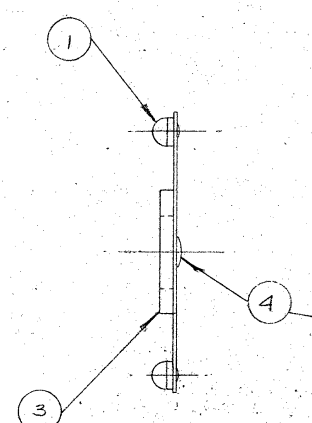
DWG. NO.	B / 742 - 93
REV.	B



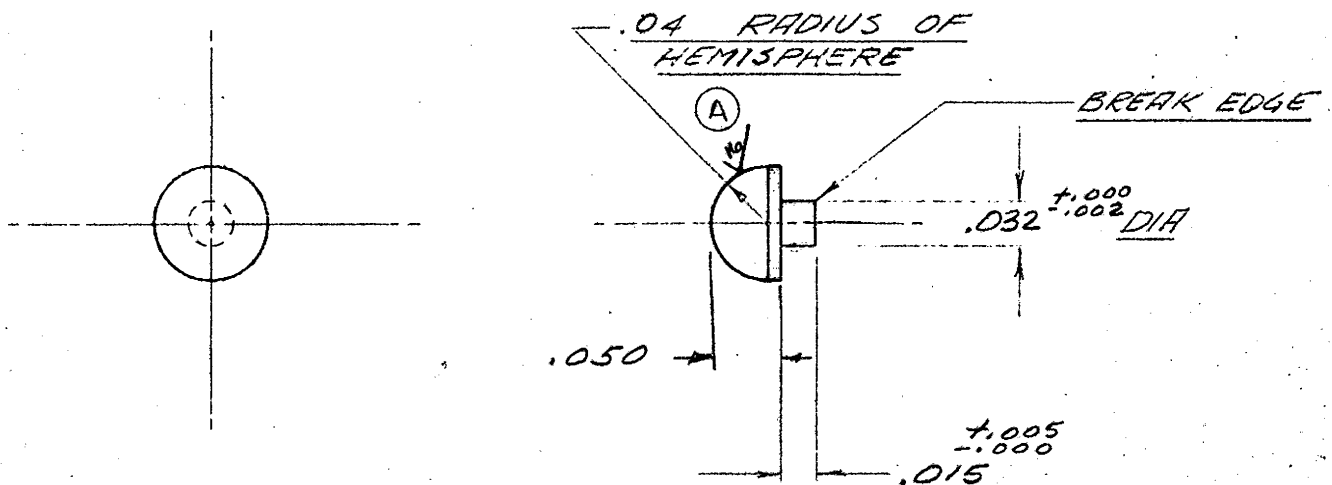
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

FINISH	
SPEC.	<i>2</i>

W.O.		TITLE SPRING-INDEX-STAT			
NO. REG'D. 1		DETENT, CAP			
DRAWN RSN		DATE 2-5-63	SCALE 4:1		
		DATE 5 FEB 63	OWG. SIZE B	OWG. NO. 1742-2	REV. B
		DATE 2-6-63			

		 INSERT RIVETS WITH HEADS ON THIS SIDE. FUNNEL OVER OPPOSITE END INTO CSINK & TRIM FLUSH WITH SURFACE. DETENTS MUST BE HELD IN LINE WITH FLATS WITHIN 15																																																	
DWG. NO. B 1742-94 REV. A		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">REVISIONS</th> <th>DWG. NO.</th> <th>REV.</th> </tr> <tr> <td colspan="2"></td> <td>B 1742-94</td> <td>A</td> </tr> <tr> <th>SYM.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> <tr> <td>A</td> <td>REDRAWN & REVISED PER EC 2968</td> <td>BSH</td> <td>2-5-63</td> </tr> </table>		REVISIONS		DWG. NO.	REV.			B 1742-94	A	SYM.	DESCRIPTION	BY	DATE	A	REDRAWN & REVISED PER EC 2968	BSH	2-5-63																																
REVISIONS		DWG. NO.	REV.																																																
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SYM.	DESCRIPTION	BY	DATE																																																
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LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>TOLERANCES (UNLESS OTHERWISE SPECIFIED)</th> <th>NEXT ASS'Y.</th> <th>NO. REQ'D.</th> </tr> <tr> <td>DECIMAL DIM. $\pm .005$</td> <td>1742-L2</td> <td>1</td> </tr> <tr> <td>FRACTIONAL DIM. $\pm 1/64$</td> <td></td> <td></td> </tr> <tr> <td>ANGULAR DIM. $\pm 5'$</td> <td></td> <td></td> </tr> <tr> <td colspan="3">ALL DIMENSIONS GIVEN IN INCHES</td> </tr> </table>		TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	DECIMAL DIM. $\pm .005$	1742-L2	1	FRACTIONAL DIM. $\pm 1/64$			ANGULAR DIM. $\pm 5'$			ALL DIMENSIONS GIVEN IN INCHES			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">ITEM</th> <th>PART NUMBER</th> <th>QTY</th> <th>DESCRIPTION</th> </tr> <tr> <td>4</td> <td>A 1360-14-50</td> <td>2</td> <td>RIVET</td> </tr> <tr> <td>3</td> <td>A 1742-148</td> <td>1</td> <td>HUB-DETENT</td> </tr> <tr> <td>2</td> <td>B 1742-93</td> <td>1</td> <td>SPRING-DETENT</td> </tr> <tr> <td>1</td> <td>A 1742-95</td> <td>2</td> <td>RIVET-INDEXING, CAP</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">TITLE: ASSEMBLY INDEXING-DETENT, CAP</td> <td>STAT.</td> </tr> <tr> <td>DATE: 2-4-63</td> <td>SCALE: 1/1</td> <td></td> </tr> <tr> <td>DATE: 5 FEB 63</td> <td>DWG. NO. B 1742-94</td> <td>STAT. A</td> </tr> <tr> <td>DATE: 2-6-63</td> <td></td> <td></td> </tr> </table>		ITEM		PART NUMBER	QTY	DESCRIPTION	4	A 1360-14-50	2	RIVET	3	A 1742-148	1	HUB-DETENT	2	B 1742-93	1	SPRING-DETENT	1	A 1742-95	2	RIVET-INDEXING, CAP	TITLE: ASSEMBLY INDEXING-DETENT, CAP		STAT.	DATE: 2-4-63	SCALE: 1/1		DATE: 5 FEB 63	DWG. NO. B 1742-94	STAT. A	DATE: 2-6-63		
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.																																																	
DECIMAL DIM. $\pm .005$	1742-L2	1																																																	
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DATE: 2-4-63	SCALE: 1/1																																																		
DATE: 5 FEB 63	DWG. NO. B 1742-94	STAT. A																																																	
DATE: 2-6-63																																																			

REVISIONS		DWG. NO.	REV.
		1742-95	A
SYM.	DESCRIPTION	BY	DATE
A	✓ ADDED, PER EX 2424		11-9-62

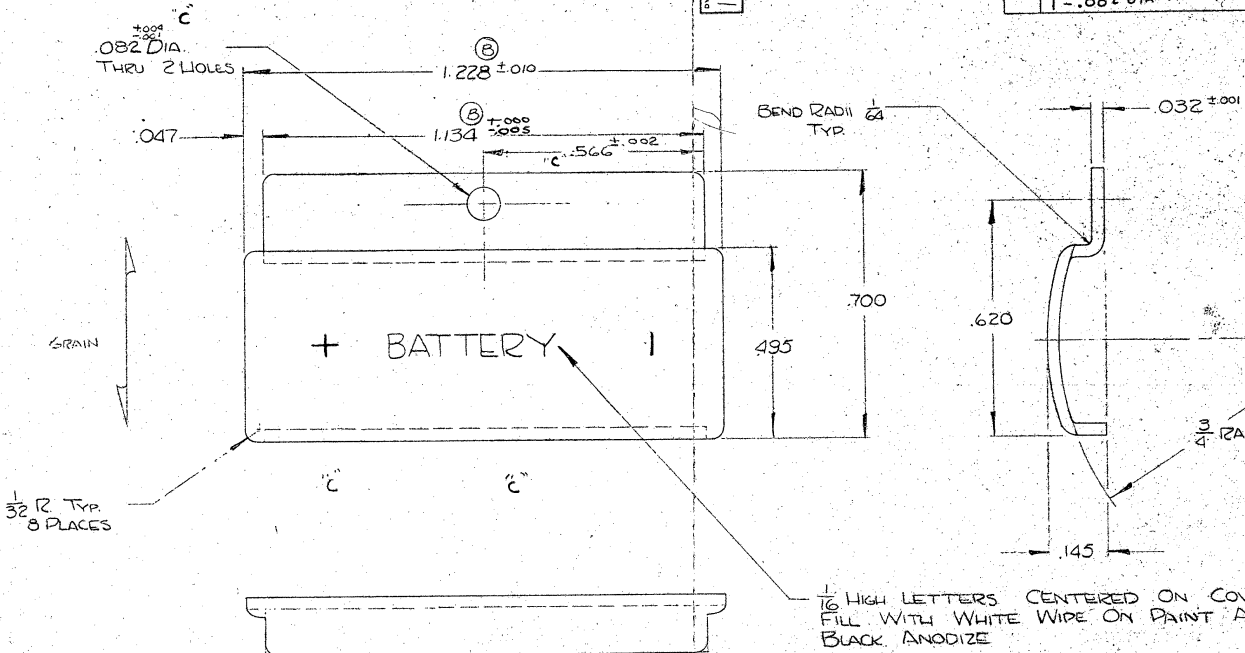


LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL SPEC	FINISH SPEC	W.O. NO. REQ'D.	TITLE	DATE	SCALE	DWG. SIZE	DWG. NO.	REV.
DECIMAL DIM. ± .005		1742-94	2	303 STAINLESS STEEL MIL-S-7720 COMP. 303S	CLEAR PASSIVATED MIL-F-14072 FINISH E300	JGG	RIVET-INDEXING, CAP	10-10-62	10.1	A	1742-95	A
FRACTIONAL DIM. ± 1/64								4 FEB 63				
ANGULAR DIM. ± 5°								11-15-62				
ALL DIMENSIONS GIVEN IN INCHES												

CLEARPRINT 1020

NOTES:
BREAK ALL SHARP EDGES



1742-96
REV. C

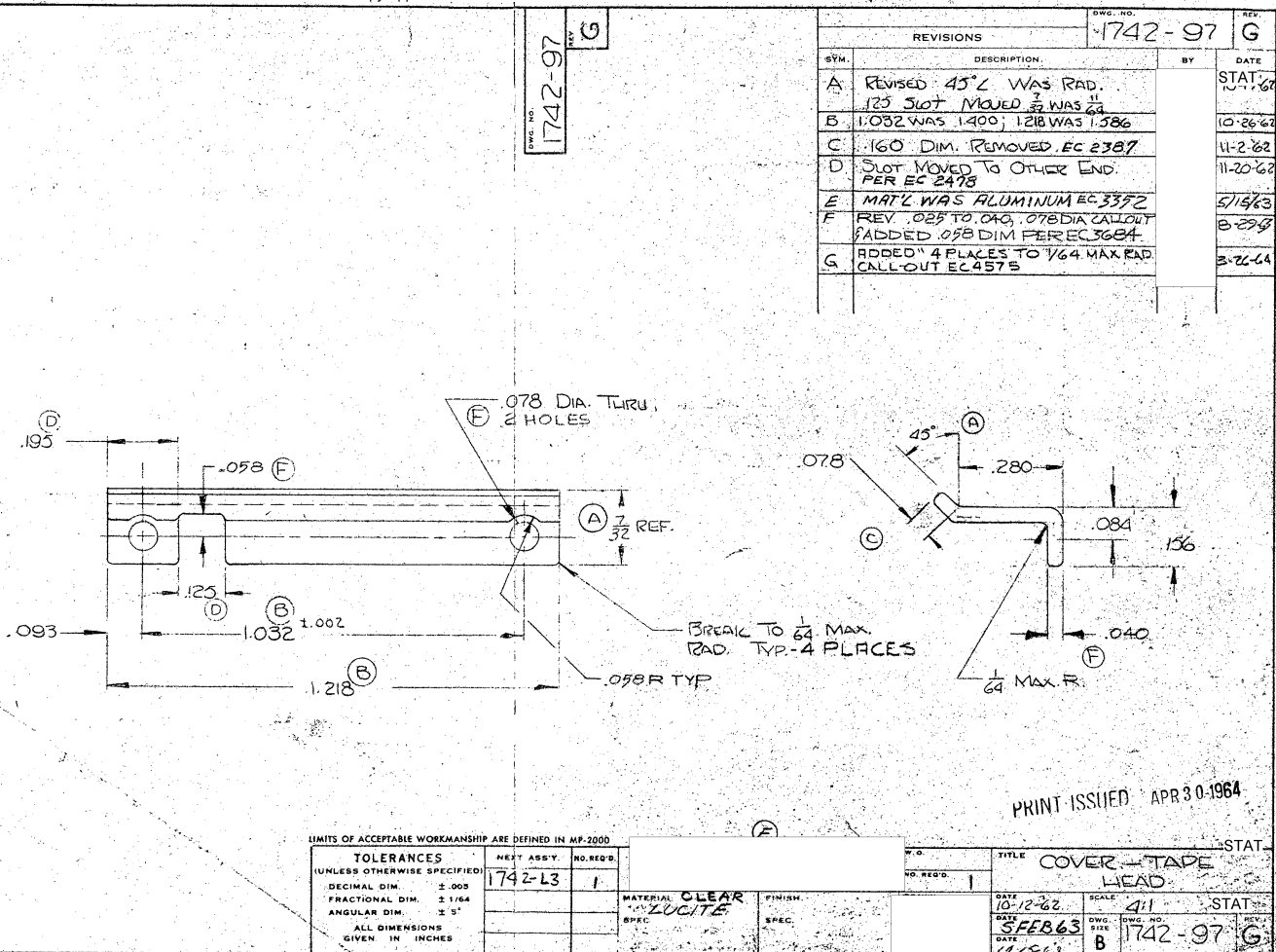
REVISIONS		DWG. NO.	REV.
		1742-96	C
SYM.	DESCRIPTION	BY	DATE
A	LETTERING ADDED	RGA	10-19-62
B	O.A.L. SUPPLEMENTED BY 019/EC 2481	RGA	11-20-62
C	2-.078 DIA HOLES REMOVED, AS 1-.082 DIA HOLE ADDED 3341	WAL	3 MAR 63

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000		
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. ± .005	1742-412	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5°		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL 5052
ALUMINUM
QQ-A-318
COMP 5052 COND. K4

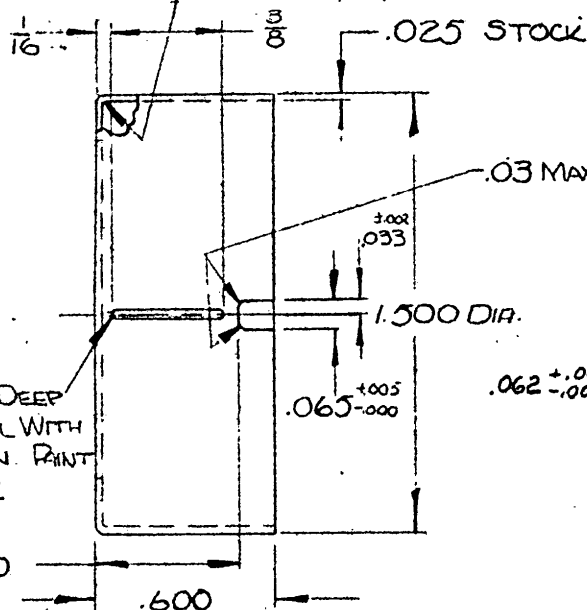
FINISH
BLACK ANODIZE
SPEC.
MIL-A-8623
TYPE II

PRINT ISSUED APR 30 1964		STAT.	
W.O.	TITLE	DATE	SCALE
NO. REQ'D. 1	COVER-BATTERY	0-10-62	4:1
		DATE 5 FEB 63	SCALE B
		DWG. NO. 1742-96	REV. C

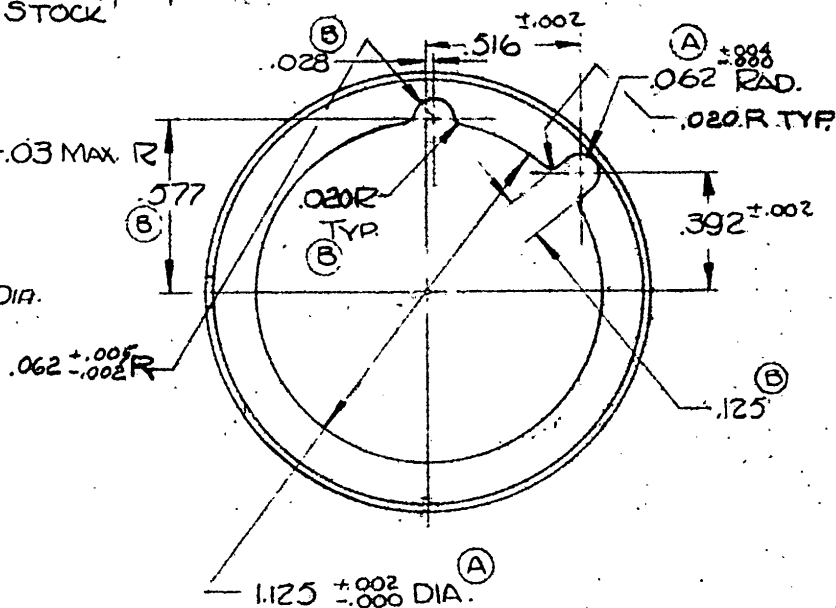


NOTES: 1.) DIAMETERS TO BE CONCENTRIC WITHIN .005 T.I.R.
2.) BREAK SHARP EDGES .005 MAX. RAD.

BEND RADII - SHARP
TO $\frac{1}{64}$ RAD.



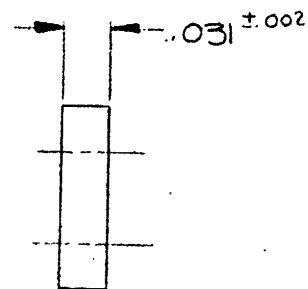
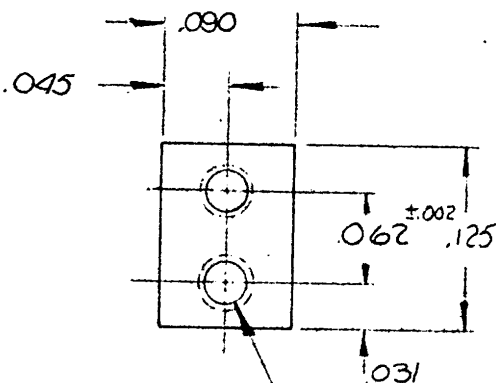
③
ENGRAVE .010 DEEP
X-.010 WIDE. FILL WITH
WHITE WIFE IN. PAINT
AFTER BLACK
ANODIZE



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY.	NO. REQ'D.	W.O.		TITLE		STAT	
DECIMAL DIM. ± .005		1742-L2	1	NO. REQ'D. 1		COVER-DUST COMMUTATOR			
FRACTIONAL DIM. ± 1/64				DRAWN		DATE	SCALE	STAT	
ANGULAR DIM. ± 5°						10-12-62	2:1		
ALL DIMENSIONS GIVEN IN INCHES		MATERIAL 5052 ALUMINUM SPEC. MIL-A-8625 TYPE II		FINISH BLACK ANODIZE		DATE	DWG. NO.	REV.	
		QQ-A-318				5 FEB 63	A	1742-98 C	
		COMA 5052 COND 1/4				DATE			
						10-15-62			

REVISIONS		DWG. NO.	REV.
		1742-99	A
SYM.	DESCRIPTION	BY	DATE
A	ADDED TAP DRILL INFO. PER EC 3411		6-3-62
			STAT



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.	MATERIAL BRASS SPEC. QQ-B-613 Comp. $\pm$ HARD	FINISH SPEC.	W.O.	TITLE BLOCK-ANCHOR LEAFSPRING & CONTACTS	STAT		
	1742-27	1			NO. REQ'D.		1	STAT	
								DATE	SCALE
								DATE	DWG. NO.
					10-12-62	10:1			
					5 FEB 63	A	1742-99		
					10-15-62	A	A		

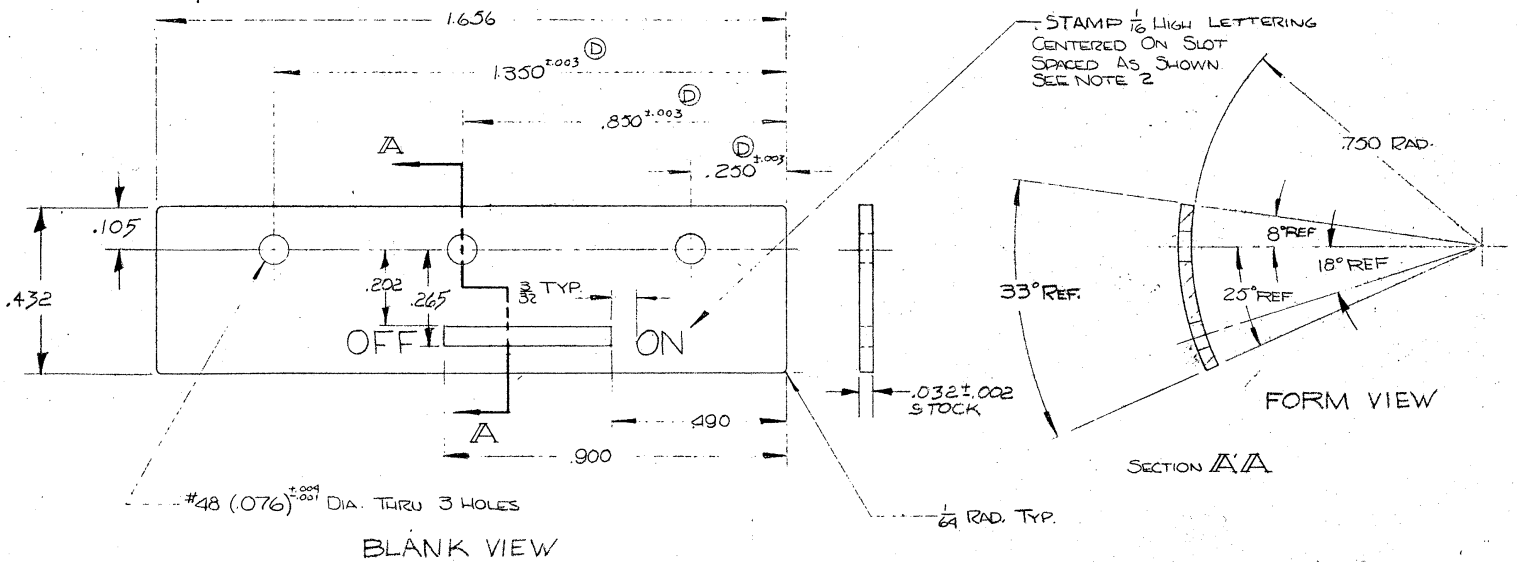
CLEARPRINT 1020

PRODUCTION DRAWING CONTROL DE

- ① BREAK ALL SHARP EDGES
- ② FILL NUMERALS WITH WHITE WIDE ON PAINT AFTER BLACK ANODIZE

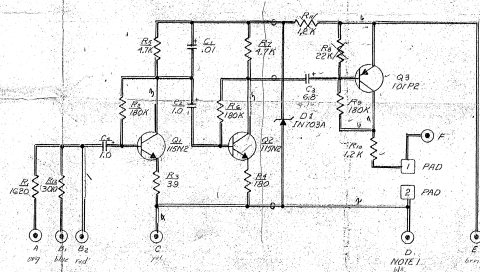
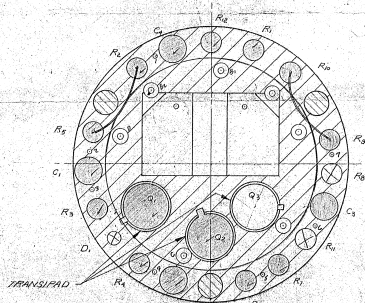
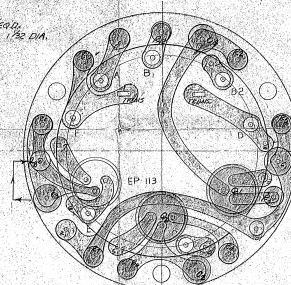
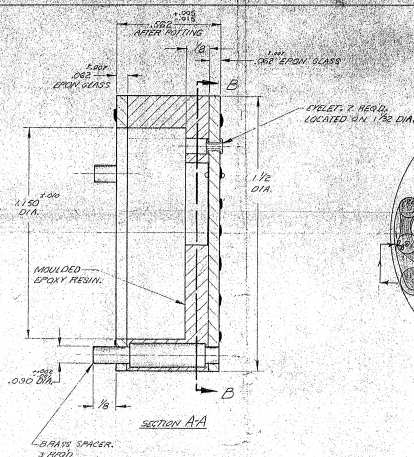
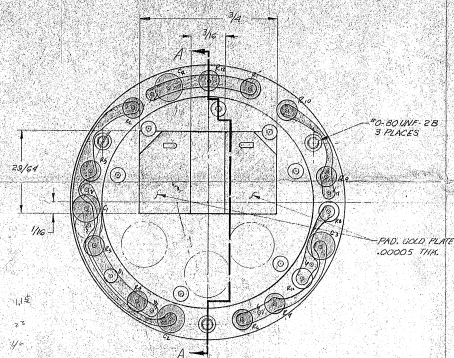
REV. 10-1-68

		DWG. NO.	1742-100	REV.
REVISIONS				
SYM.	DESCRIPTION	BY	DATE	
A	REVISED & REDRAWN: LETTERING ADDED EC 2434	R.G.A.	11-8-61	
B	222 DIM. ADDED PER EC 2403	R.G.A.	11-20-62	
C	ADDED BLANK VIEW PER EC 3613	LT	8-15-63	
D	REV TOL: .002 TO .003 ON 1.350, .8509 .250 DIM'S PER EC 3663	LT	8-27-63	



PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKSMANSHIP ARE DEFINED IN MP-2000				W.O.		TITLE			
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO. REQ'D	NO. REQ'D		COVER-ACTUATOR ^{STAT} BAR AND PAWL			
DECIMAL DIM.	± .005	1742-L13	1	1		DATE	SCALE	4:1	STAT
FRACTIONAL DIM.	± 1/64					11-8-62			
ANGULAR DIM.	± 5°					S F 68 63	DWG. NO.		
ALL DIMENSIONS GIVEN IN INCHES						DATE	SIZE	DWG. NO.	REV.
						11/9/62	B	1742-100	D
MATERIAL 5052 ALUMINUM DQ-A-318 COMP. 5052 COND Y				FINISH BLACK ANODITE SPEC MIL A-8625 TYPE II					



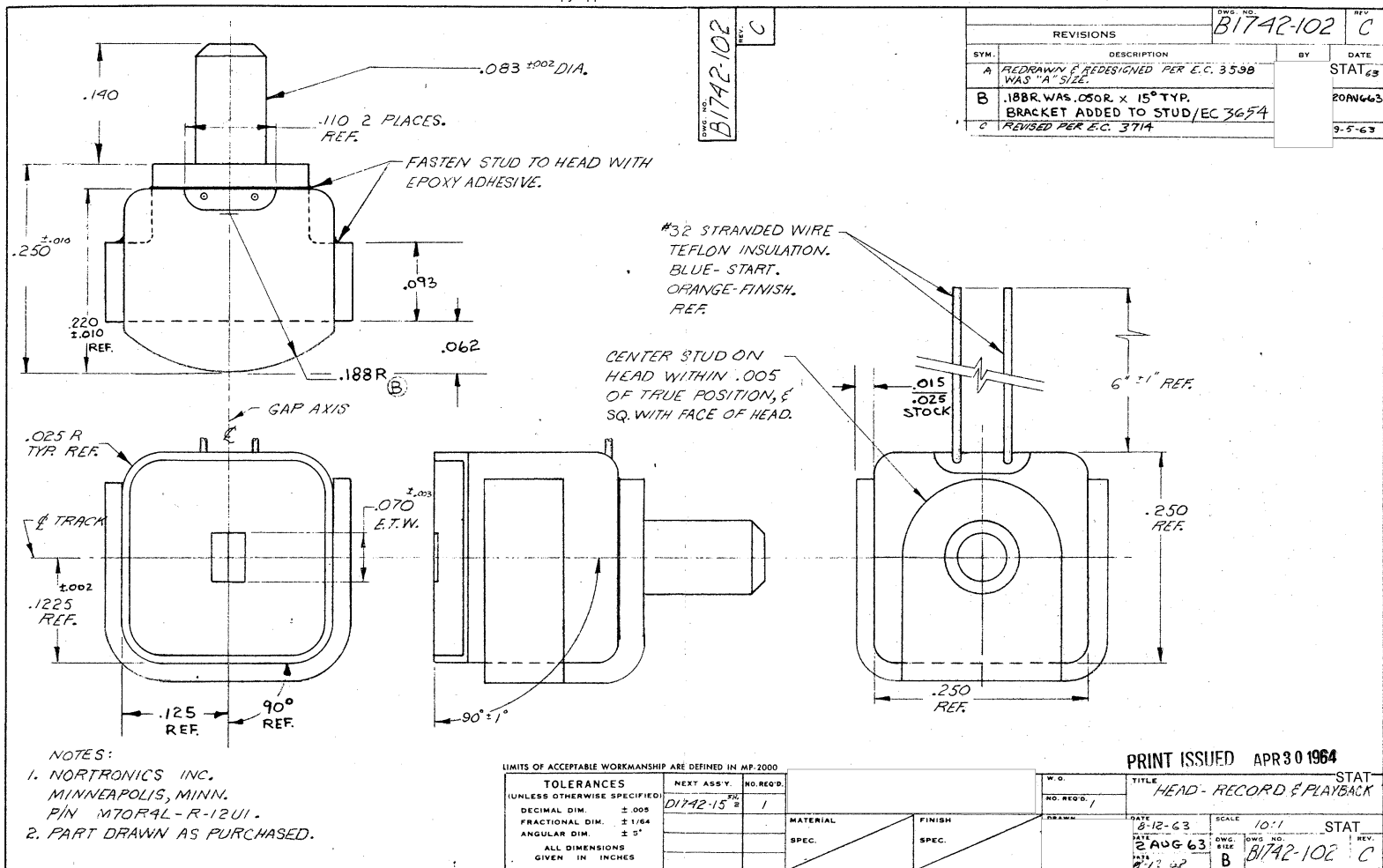
COMMENT LIST

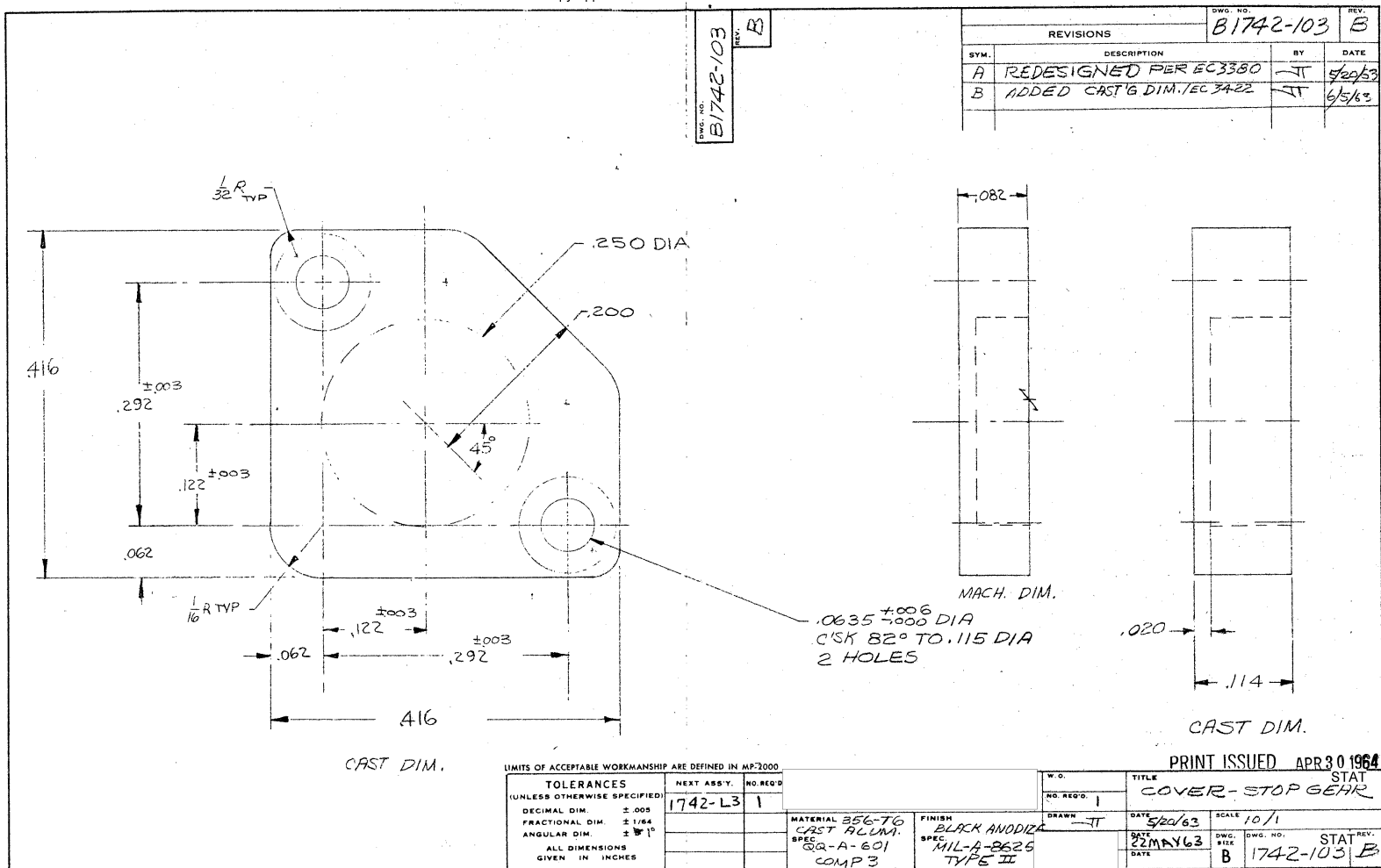
1- 01 M/S VDC 10% 37PMKUE, 15010103 X035AB
2- 10 M/C VDC 20% " 18010103 X000DE
3- 88 M/S VDC 20% " 18010103 X000CA
4- 01 M/S VDC 20% " 18010103 X000DE
5- 170103A
6- 111NE REE REL DNG 17M-125-G1
7- 101P2 17M-125-G1
8- 101P2 18W, 1% TYPE CG, 17AS INSTRUMENT
9- 101P2 14W, 5% CB, ALLEN BURNER
10- 180
11- 180
12- 47A
13- 47A
14- 22A
15- 180A
16- 12X
17- 3000
18- 18W, 1% CG, 17AS INSTRUMENT
19- 100AS TRANSPARENT MILITARY RAS 16M/15 IN, 3.5FE

NOTES:
1. TERMINATION "D" MUST BE LOCATED AS NEAR
TO PAD 2 AS POSSIBLE.
2. MFG. BY
ELECTROPAC CORP
NEW HAMPSHIRE

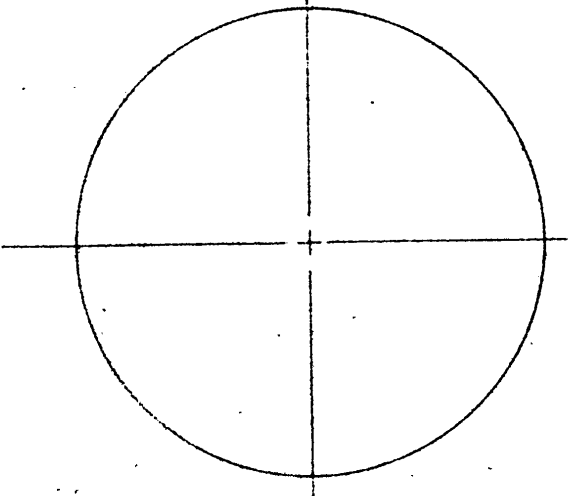
PRINT ISSUED Nov 1 198

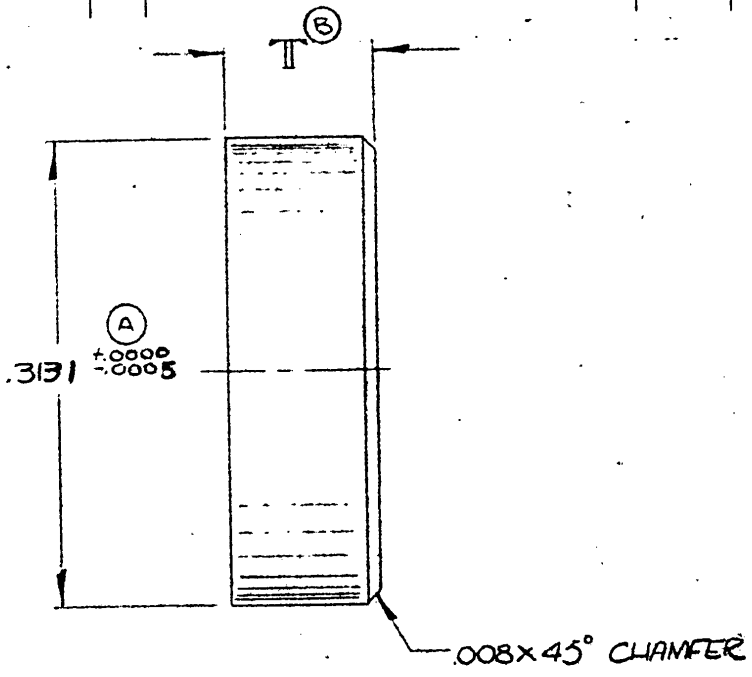
[illegible]





1742-104-	T	No. REQ'D	NEXT ASSY		DWG. NO.	REV.	
-1	.055	1	1742-106	(B)	REVISIONS	1742-104-	B
-2	.110	1	1742-106		SYN.	DESCRIPTION	BY
					A. .3131 $\pm .0005$ WAS .3130 $\pm .0002$ PER EC 2932	RCA.	11-9-67
					B. WAS A SINGLE PT. DWG of PN 1742-104-1 PER EC 2517	RCA.	11-25-67





.008 x 45° CHAMFER

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000									
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY.	NO. REQ'D.			W.D.	TITLE		
DECIMAL DIM. $\pm .005$		1742-106	1EA.			NO REQ'D 1 EACH.	PLUG-LEFT 312STAT PLATE		
FRACTIONAL DIM. $\pm 1/64$							DATE	SCALE	STAT
ANGULAR DIM. $\pm 5^\circ$							10-22-62	10:1	STAT
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL 2024 ALUMINUM SPEC. QQ-A-268 COND. T4		FINISH SPEC.	DATE	DWG. NO.	REV.
						~	FEB 63	1742-104-	B
						~	10-23-62	A	

STAT

PRODUCTION DRAWING CONTROL

		DWG. NO.	REV.
REVISIONS		1742-107	
SYM.	DESCRIPTION	BY	DATE

SPRING PLUNGER; #6-32 THD. 19/32 O.A. (INCLUDING PLUNGER)
"NYLON"

ORIGINAL SOURCE:
VLIER ENGINEERING CORP.
8900 SANTA MONICA BLVD.
LOS ANGELES 46, CALIFORNIA.
THEIR NO.
S-48AN

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000					W.O.		TITLE		STAT.	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)					NO. REQ'D.		PLUNGER-SPRING (V L I E R)			
DECIMAL DIM. ± .005					1					
FRACTIONAL DIM. ± 1/64							DATE		SCALE	
ANGULAR DIM. ± 5'							11-13-62			
ALL DIMENSIONS GIVEN IN INCHES			MATERIAL		FINISH		DATE		STAT.	
			SPEC.		SPEC.		5 FEB 63		DWG. NO.	
							DATE		DWG. SIZE	
							11-15-62		1742-107	
							A		REV.	

DWG. NO.		REV.	
1742-108			
REVISIONS			
SYM.	DESCRIPTION	BY	DATE

#4-48 BALL PLUNGER ; STAINLESS
STEEL WITH "NYLOK" INSERT

ORIGINAL SOURCE:
VLIER ENGINEERING CORP.
8900 SANTA MONICA BLVD.
LOS ANGELES 46, CALIFORNIA.
THEIR NO.
SSB-46N

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

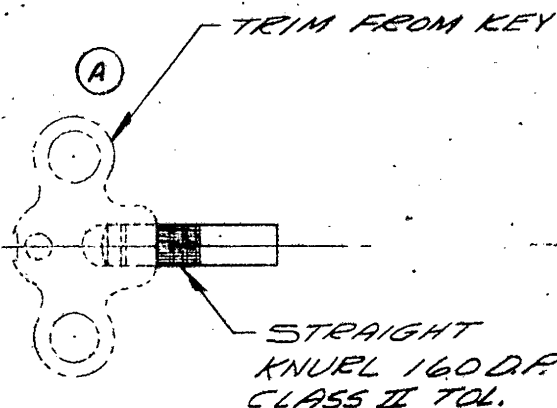
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT.	
DECIMAL DIM. $\pm .005$		1742-L12	2	NO. REQ'D. 2		PLUNGER-BALL (VLIER)			
FRACTIONAL DIM. $\pm 1/64$						DATE 11-13-62		SCALE ~ STAT	
ANGULAR DIM. $\pm 5'$						DATE 5 FEB 63		DWG. NO. 1742-108	
ALL DIMENSIONS GIVEN IN INCHES						DATE 1-15-63		REV. A	
		MATERIAL	FINISH						
		SPEC. ~	SPEC. ~						

CLEARPRINT 1020

ORIGINAL SOURCE:

RALPH HERMAN CLOCK HOUSE
628 CONEY ISLAND AVE.
BROOKLYN 18, N.Y.
TELE # 271

REVISIONS		DWG. NO.	REV.
		A/1742-109	D
SYM.	DESCRIPTION	BY	DATE
A	KEY CUT BACK KNURLED PER EC 4595		STAT-63
B	ADD 1742-15 REQD TO NEXT ASSY REQD COLUMN PER EC 3381		5/22/63
C	ADDED NOTE 1 EC 4570		3-26-64
D	REVISED NOTE 1 PER EC 4595		4-3-64



NOTE:

I. FOLLOWING MACHINING OPERATION, PARTS TO BE STRIPPED OF EXISTING PLATING & CADMIUM PLATE PER QQ-P-416A, TYPE 2 TO PREVENT CORROSION.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY.	NO. REQ'D.	MATERIAL		FINISH		TITLE		STAT.
DECIMAL DIM. $\pm .005$		1742-143	6	SPEC. ~		SPEC. ~		KEY - WIND (MODIFIED)		STAT.
FRACTIONAL DIM. $\pm 1/64$		1742-15	1	SPEC. ~		SPEC. ~		DATE 11-12-62		SCALE FULL SIZE
ANGULAR DIM. $\pm 5'$								DATE 5 FEB 63		DWG. NO. 1742-109
ALL DIMENSIONS GIVEN IN INCHES								DATE 11-12-62		REV. D

REVISIONS		DWG. NO.	REV.
		1742-110	B
SYM.	DESCRIPTION	BY	DATE
A	REVISED & REDRAWN PER EC 2914		STAT 63
B	ADDED .010 STOCK SIZE PER EC 3464		6-21-63

#52(.063)^{+.003}_{-0.001} DIA. THRU

.062R

.030

.004^{+.010}_{-0.000}

.015R

.040

.031 DIA. THRU

.010 STOCK SIZE

TAN. R

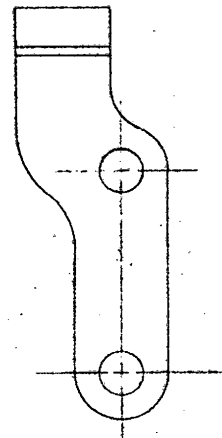
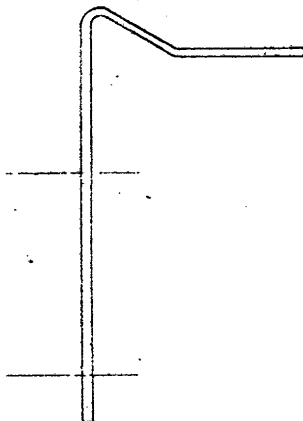
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000				W.O.		TITLE		STAT
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	NO. REQ'D.		LUG-SOLDER COMMUTATOR		STAT
DECIMAL DIM. ± .005		1742-15	2	2		DATE 1-18-63		SCALE 4:1
FRACTIONAL DIM. ± 1/64				DATE 5 FEB 63		DWG. NO. 1742-110		STAT
ANGULAR DIM. ± 5°				DATE 1/23/63		DWG. SIZE A		REV. B
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL BERYLLIUM COPPER		FINISH SILVER PLATE		
				SPEC. QQ-C-533		SPEC. QQ-5-365		
				COND. 1/2 HARD				

ORIGINAL SOURCE:

ROANWELL, CORP.

180 VARICK ST. ; NEW YORK 14, N.Y.

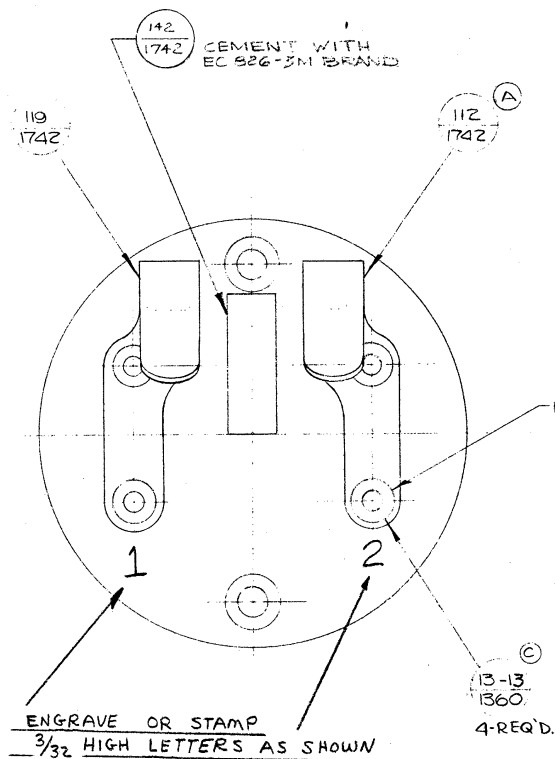
THEIR #14243



REVISIONS		DWG. NO.	REV.
		1742-112	
SYM.	DESCRIPTION	BY	DATE

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5'$ ALL DIMENSIONS GIVEN IN INCHES		NEXT ASS'Y. 1742-113	NO. REQ'D. 1	MATERIAL SPEC.	FINISH SPEC.	W.O. NO. REQ'D. 1	TITLE CONTACT- RIGHT TRANSDUCER	DATE 10-31-62	SCALE 4:1	STAT STAT	DATE 5 FEB 63	DWG. SIZE A	DWG. NO. 1742-112	REV. 1
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ROLL STAKE 4 PLACES

BEND BOTH CONTACTS
AFTER RIVETING SECURELY
IN PLACE.120
1742 (A)

REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	1742-112 WAS 1742-120; 1742-120 WAS 1742-119 EC 2465		10-10-63
B	ADDED ROLL STAKE 4 PLACES EC 3862		10-21-63
C	REV 1360-13-5 TO 1360-13-13 EC 3916		11-4-63
D	ADDED 1742-142 PER EC 4013		

PRINT ISSUED APR 30 1964

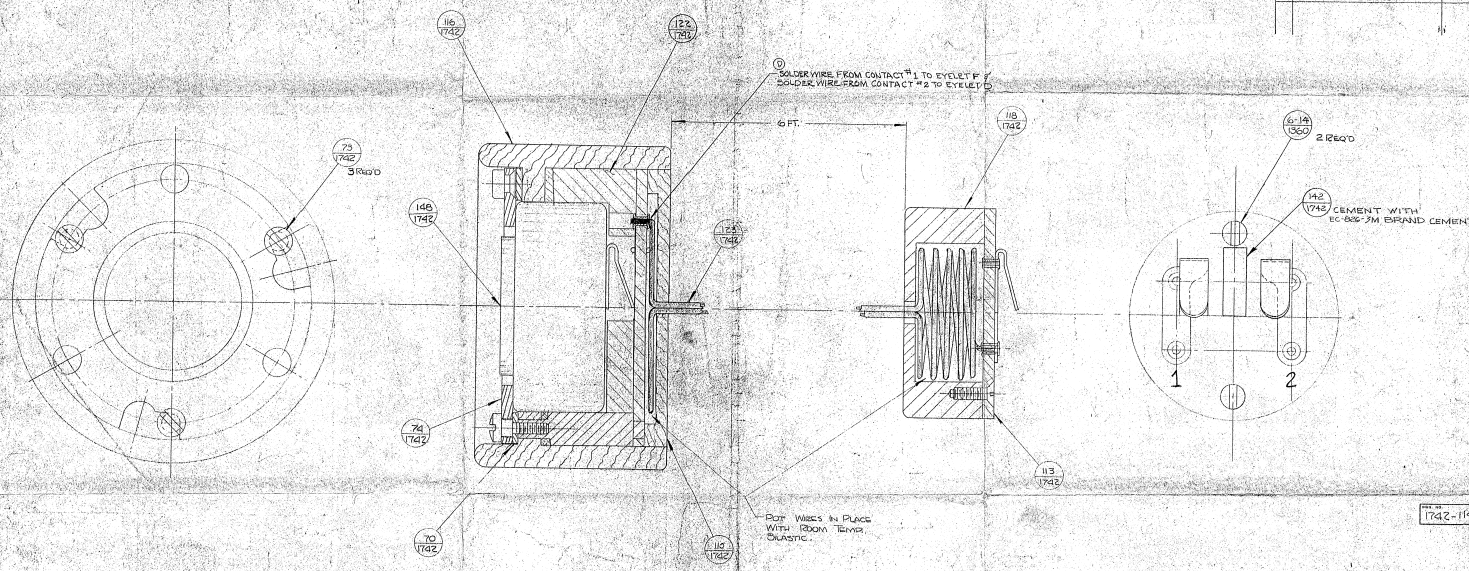
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY	NO. REQ'D
DECIMAL DIM. ± .005	1742-114	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5°		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL	FINISH
SPEC S	SPEC S

W.O.	TITLE	SCALE	REV.
NO. REQ'D: 1	ASSEMBLY-ADAPTE CONTACT (REMOTE TRANSDUCER)	4:1	D
DATE 5 FEB 63	DWG. NO. B 1742-113	DWG. NO. B 1742-113	REV. D
DATE 12-7-62			

REVISIONS				1742-114	E
REV	DESCRIPTION	DATE	BY	CHKD	
A	1742-114 AS 1742-117	REU	8/6/68		
B	ADDED 1742-142 PER EC 3305	LT	8/7/68		
C	REV 1360-10 TO 1360-11	LT	8/7/68		
D	REVISED EC 4103	TSQ	10/1/68		
E	DELETED 1047, 1048, 1071, 1074	LT	11/2/68		
	DIM'S PER EC 4103				



1742-114
E

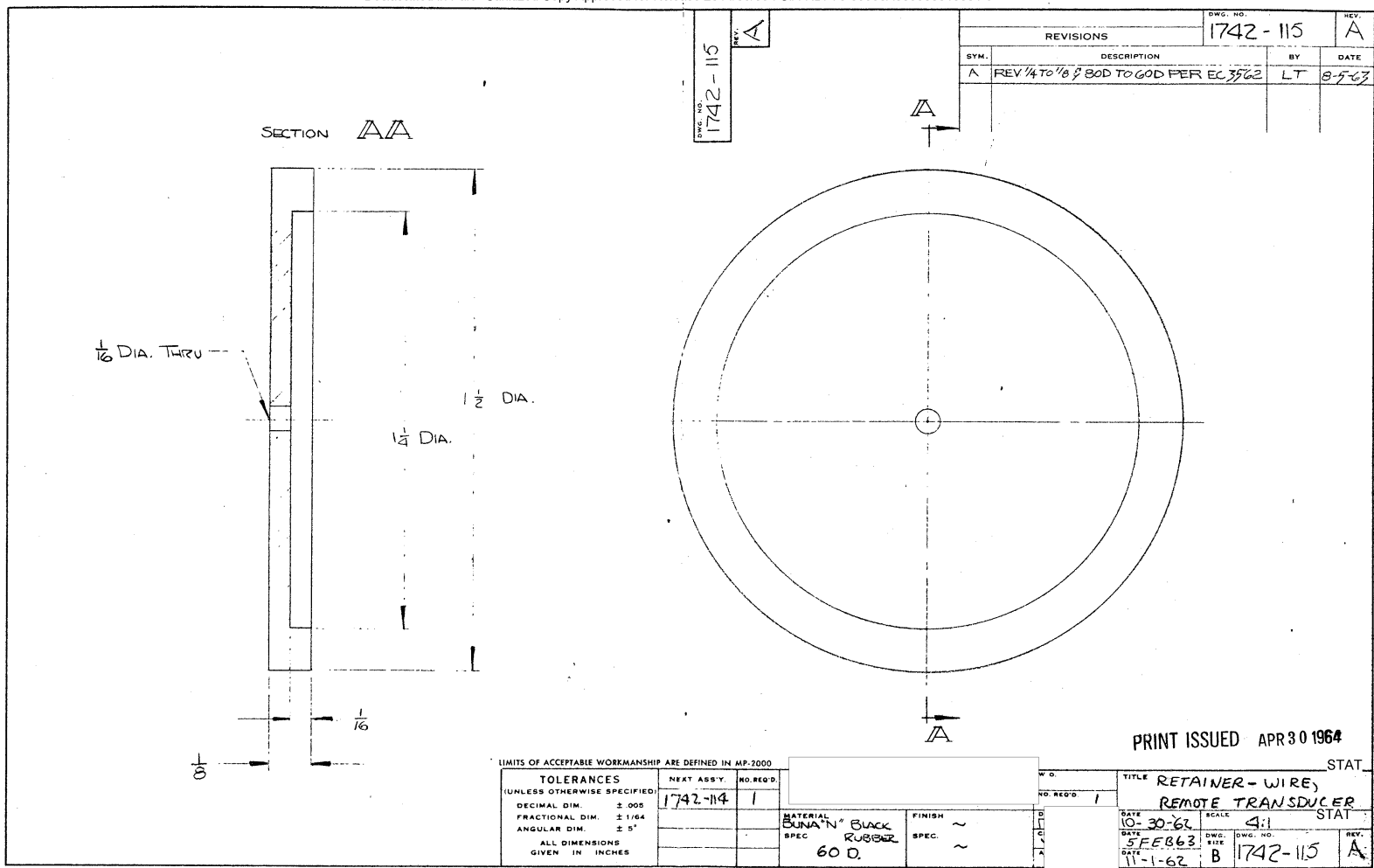
PRINT ISSUED MAY 1 1968

DETAIL SHOWING RELATIONSHIP BETWEEN PARTS 1 AND 2 PER 1742-117

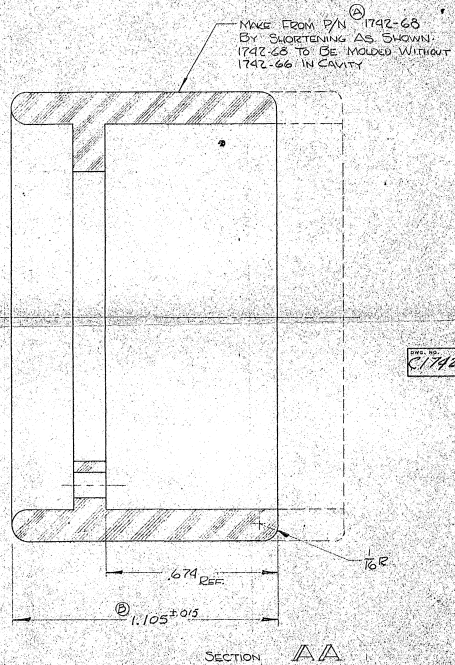
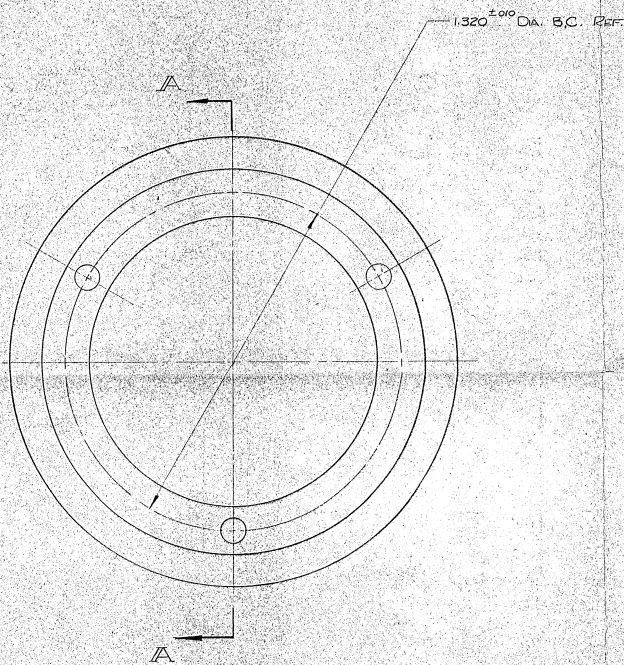
TOLERANCES		UNLESS OTHERWISE SPECIFIED	
FRAC.	DEC.	FRAC.	DEC.
1/16	0.001	1/16	0.001
1/32	0.0005	1/32	0.0005
1/64	0.0002	1/64	0.0002
1/128	0.0001	1/128	0.0001

ASSEMBLY		REMOTE TRANSDUCER	
REV	DATE	REV	DATE
1	8/6/68	1	8/6/68
2	8/7/68	2	8/7/68
3	8/7/68	3	8/7/68
4	8/7/68	4	8/7/68
5	8/7/68	5	8/7/68
6	8/7/68	6	8/7/68
7	8/7/68	7	8/7/68
8	8/7/68	8	8/7/68
9	8/7/68	9	8/7/68
10	8/7/68	10	8/7/68
11	8/7/68	11	8/7/68
12	8/7/68	12	8/7/68
13	8/7/68	13	8/7/68
14	8/7/68	14	8/7/68
15	8/7/68	15	8/7/68
16	8/7/68	16	8/7/68

PRODUCTION DRAWING CONTROL



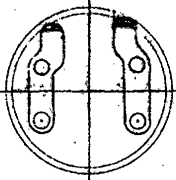
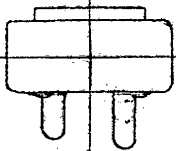
REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	REVISED TO BE MADE FROM P/N 1742-68	R.A.R.	11-7-68
B	WAS 1.043 PER EC 2924	P.S.N.	2-6-68



C1742-116
B

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MIL-STD-2000		PRINT ISSUED APR 30 1964	
TOLERANCES UNLESS OTHERWISE SPECIFIED		TITLE HOUSING - REMOTE TRANSDUCER	
DECIMAL DIM.	2.000	DATE	8-30-61
FRACTIONAL DIM.	3/16	BY	FEES
ANGULAR DIM.	3°	DATE	1-17-62
ALL DIMENSIONS UNLESS TO INCHES		REV.	C 1742-116
MATERIAL 15ALUMINUM 6061	FINISH 60 D.		

PRODUCTION DRAWING



ORIGINAL SOURCE:

ROANWELL CORP.
180 VARICK ST.
NEW YORK 14, N.Y.

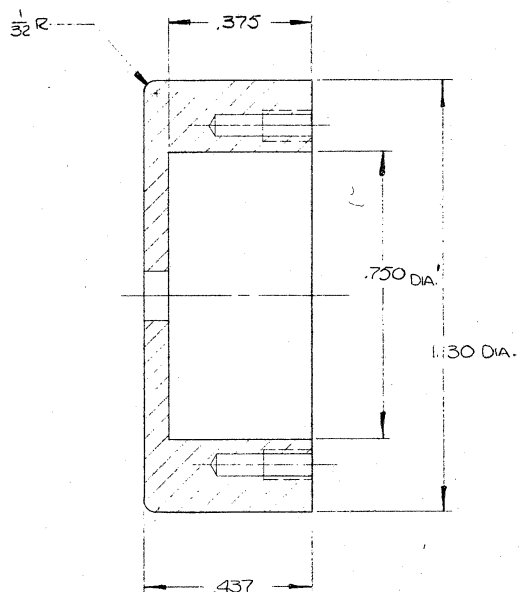
THEIR No. 9964 (MODIFIED AS ILLUSTRATED)

NOTE: SIMILAR TO
RECEIVER: ANB-H-1

REVISIONS				DWG. NO.	REV.
				A1742-117	B
SYM.	DESCRIPTION	BY	DATE		
A	ADDED LOCATION SPOT EC 2927	BSH	2/6/62		
B	REMOVED SPOT FACE EC 3582	BSH	8/6/63		

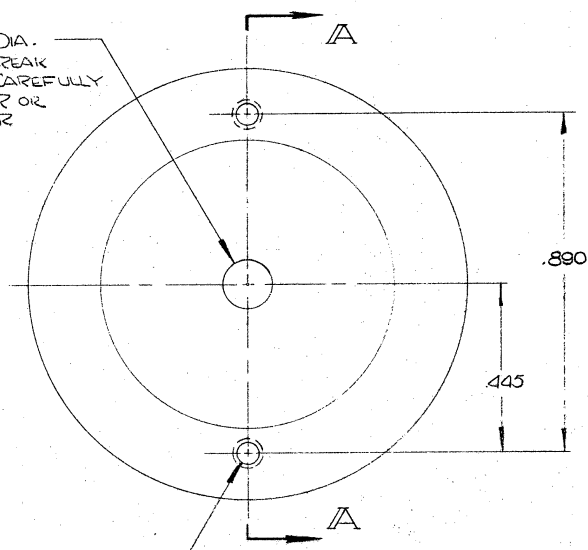
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 3'$ ALL DIMENSIONS GIVEN IN INCHES		NEXT ASS'Y. 1742-148	NO. REQ'D. 1	MATERIAL SPEC. ~	FINISH SPEC. ~	W.O. NO. REQ'D. 2	TITLE TRANSDUCER	DATE 11-13-62	SCALE ~	STAT
						DATE 5 FEB 63	DWG. SIZE A	DWG. NO. 1742-117	REV. B	STAT



SECTION AA

.125^{+0.004}_{-0.001} DIA.
THRU BREAK
EDGES CAREFULLY
.010 MAX R OR
CHAMFER



#1-72 UNF-28 MIN. FULL THO. DEPTH
.125 MAX. TAP DRILL DEPTH
2 HOLES

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)
DECIMAL DIM. $\pm .005$
FRACTIONAL DIM. $\pm 1/64$
ANGULAR DIM. $\pm 5^\circ$
ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY. NO. REQ'D.
1742-114 1

MATERIAL
VICARTA
SPEC
MIL-P-15085
COMP. FGE

FINISH
SPEC. ~

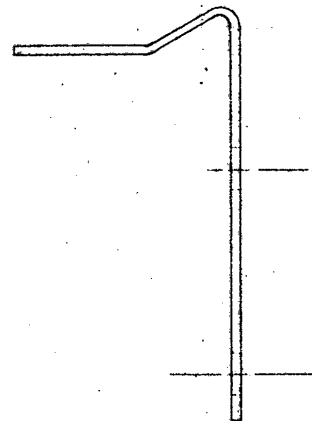
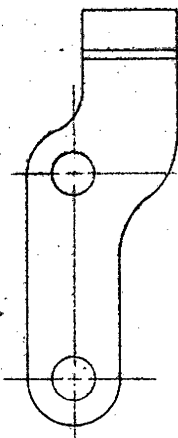
NO. REQ'D. 1

PRINT ISSUED APR 30 1962
TITLE BODY - ADAPTOR, REMOTE TRANSDUCER
SCALE 4:1
STAT
DWG. NO. 1742-118
REV. A

ORIGINAL SOURCE:

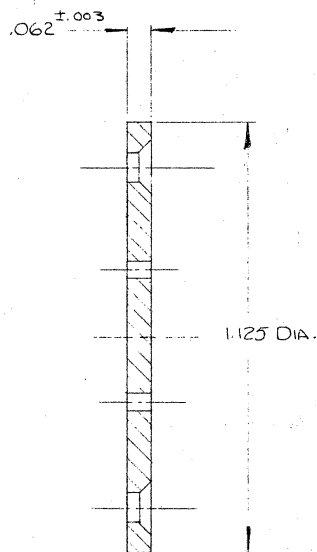
ROANWELL, CORP.
180 VARICK ST. ; NEW YORK 14, N.Y.
THEIR NO. #13242

REVISIONS		DWG. NO.	REV.
		1742-119	A
SYM.	DESCRIPTION	BY	DATE
A	ROANWELL P/N WAS 1342. PER E.C. 3539		STAT: 3



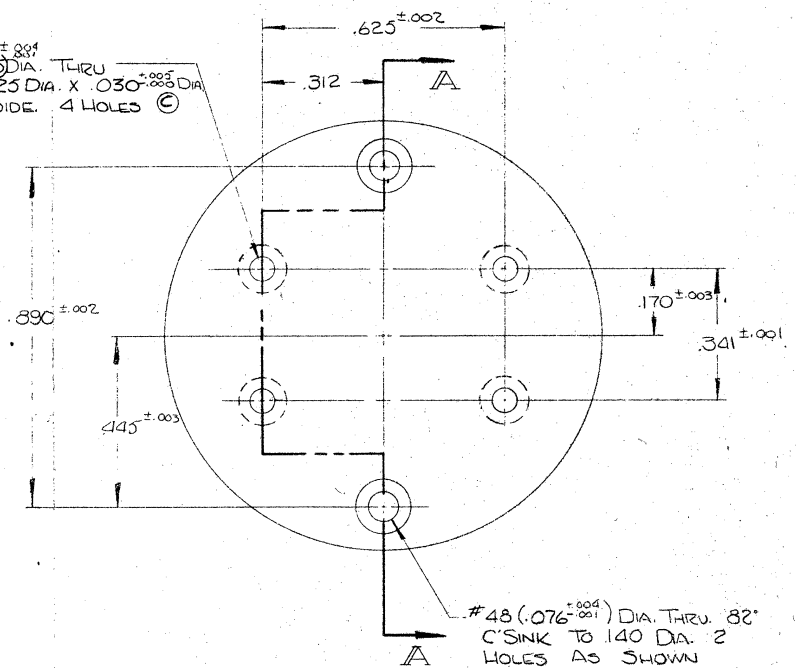
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL		FINISH		TITLE		STAT
DECIMAL DIM. $\pm .005$		1742-113	1	SPEC. ~		SPEC. ~		DATE 5-29-62		SCALE 4:1
FRACTIONAL DIM. $\pm 1/64$								DATE 5 FEB 63		DWG. NO. 1742-119
ANGULAR DIM. $\pm 5'$								DATE 7-7-62		REV. A
ALL DIMENSIONS GIVEN IN INCHES								ON DR. WING'S CONTROL DC		



SECTION AA

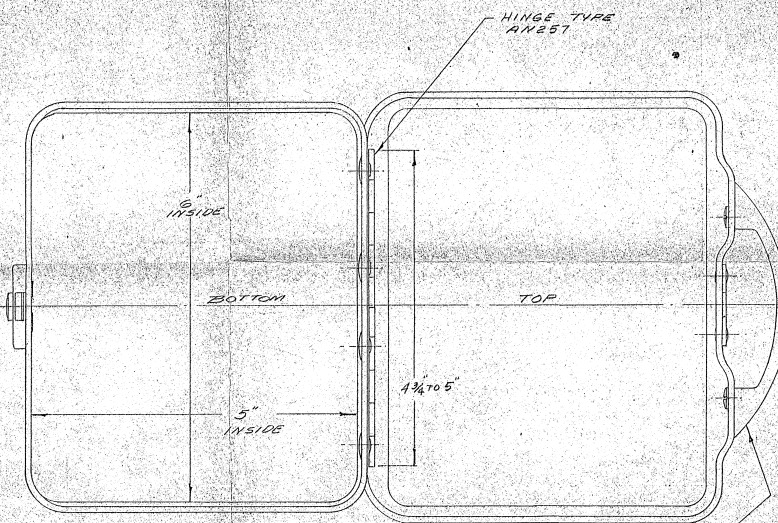
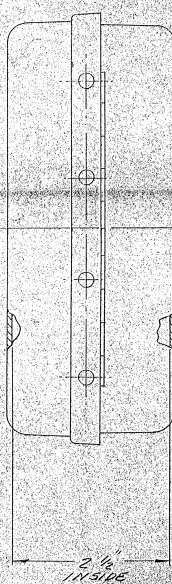
- (B) #32 (.0635) DIA. THRU
 (A) C BORE .125 DIA. X .030 ±.005 DIA
 OPPOSITE SIDE. 4 HOLES (C)



LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN WP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO. REQ'D	W.O.	NO. REQ'D	TITLE	SCALE	STAT
DECIMAL DIM.	± .005	1742-113	1			DISC-CONTACT	4:1	STAT
FRACTIONAL DIM.	± 1/64					MOUNT, REMOTE TRANSDUCER		
ANGULAR DIM.	± 5°							
ALL DIMENSIONS GIVEN IN INCHES								
				MATERIAL	FINISH	DATE	DWG. NO.	REV.
				MICARTA	~	18-29-62	1742-120	C
				SPEC	~	5 FEB 63		
				MIL-P-15035		DATE		
				COMPOSITION FBE		11-1-62		
				COND. A				

REVISIONS		DATE	BY
REV.	DESCRIPTION	DATE	BY
A	REDRAWN & REVISED PER EG 2371	2-2-63	PSH



NOTE DOUBLE: HOLLYWOOD PLASTIC CO
STYLE 1300, 6.25" ROYALITE
OF BOLTARON GRAY

HANDLE - AXAK #30-26
CHROME PLATED
S.H.E. CO. #70507
18-32 X 1/16 DIA. SCREW
8 TB SELF LOCKWASHER

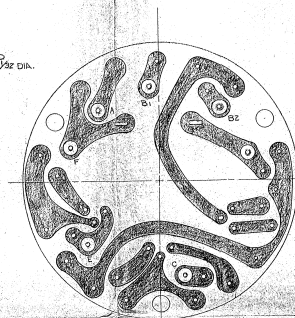
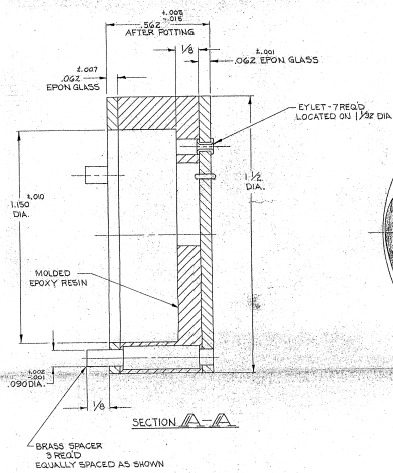
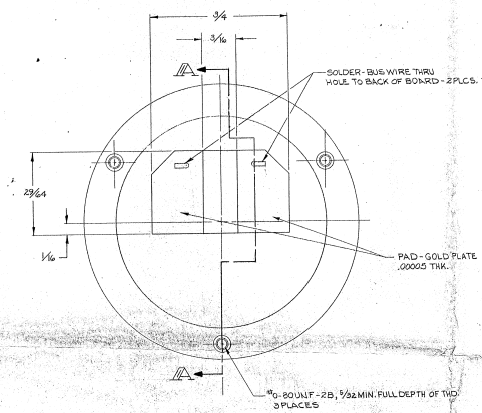
PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000		REV.	DATE
TOLERANCES:	UNLESS OTHERWISE SPECIFIED	1742-143	1
DECIMAL DIM.	± .005		
FRACTIONAL DIM.	± 1/16"		
ANGULAR DIM.	± 3°		
ALL DIMENSIONS	GIVEN IN INCHES		

CASE-TRANSPORT		REV.	DATE
REV.	DESCRIPTION	DATE	BY
2-2-63	FULL		
6 FEB 63			
18-2-63			

STAT
STAT

REVISIONS		DATE	BY
1	REVISED PER DRAWING NASC 1742-122	11-1-63	11-1-63
2	REVISED PER NASC 1742-122	11-1-63	11-1-63



NOTES:
1. THIS PART TO BE PURCHASED FROM:
ELECTRO PAC CORP.
INDUSTRIAL PARK, PETERBOROUGH,
NEW HAMPSHIRE

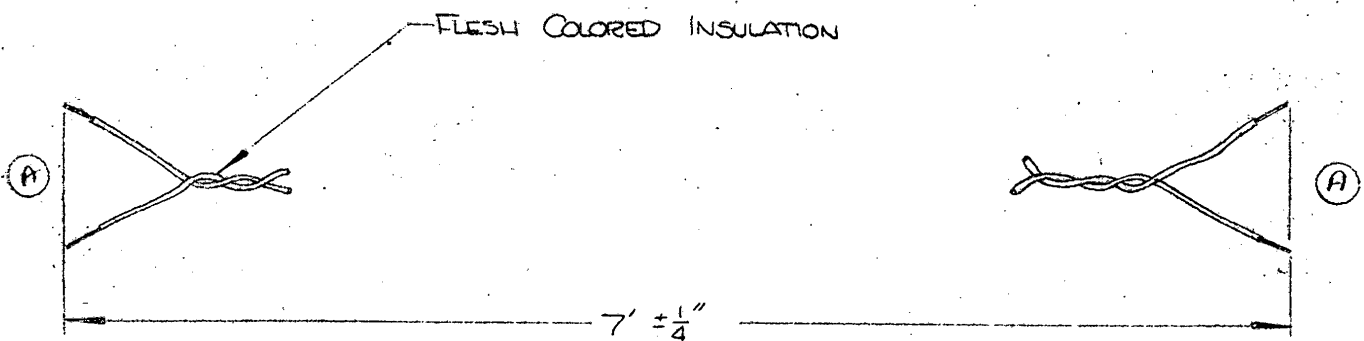
PRINT ISSUED MAY 1 1964

TOLERANCES		UNIT	ASSEMBLY	NO. OF
DECIMAL DIM.	± .005			
FRACTIONAL DIM.	± .005			
ANGULAR DIM.	± .5°			
ALL DIMENSIONS				
UNLESS OTHERWISE SPECIFIED				

ITEM	PART NUMBER	QTY	DESCRIPTION
1	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
2	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
3	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
4	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
5	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
6	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
7	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
8	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
9	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER
10	1742-122	1	THIS DUMMY-ELECTRONICS PACKAGE-REMOTE TRANSDUCER

ORIGINAL SOURCE:
TELEPHONE DYNAMICS CORP.
32 SUNRISE HIGHWAY
BALDWIN L.I., N.Y.

REVISIONS				DWG. NO.	REV.
				A1742-123	A
SYM.	DESCRIPTION	BY	DATE		
A	REMOVED EYELETS PER EC 2972	BSH	2-6-63		



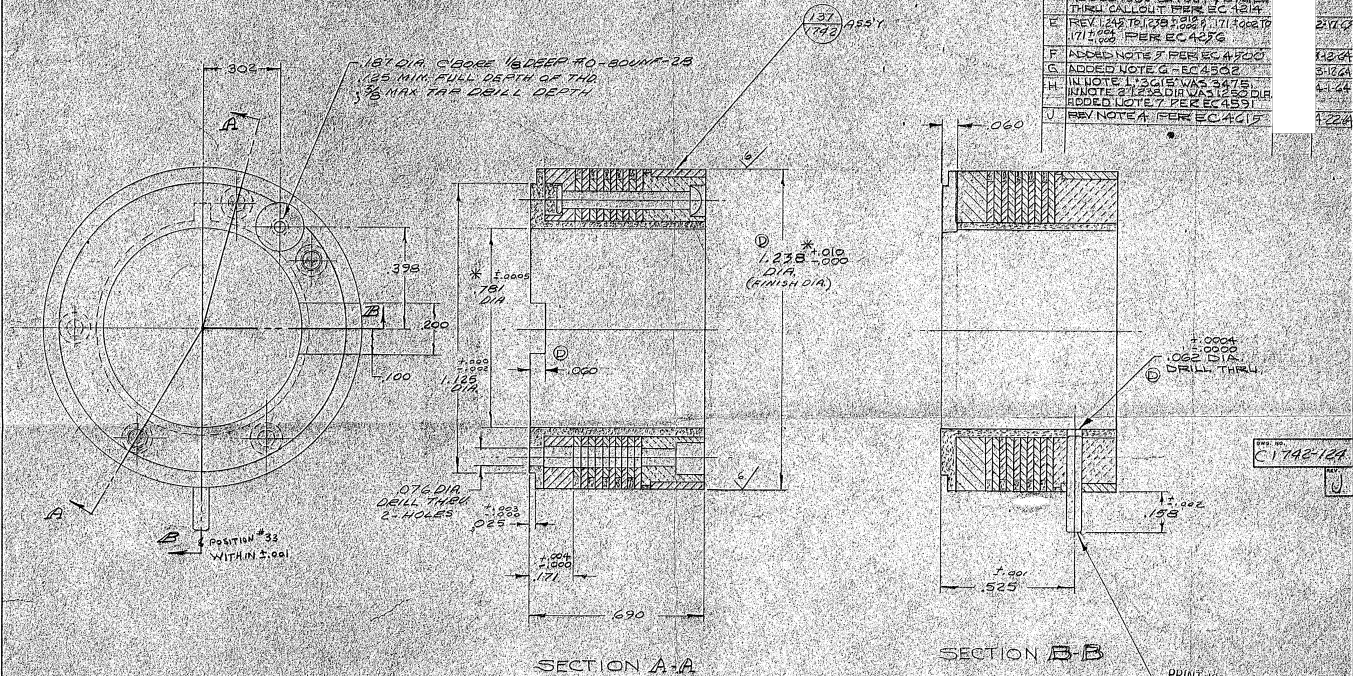
SIMILAR TO HEARING AIDE CABLE
EXCEPT STRANDED COPPER WIRE
INSTEAD OF TINSIL WIRE

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED):		NEXT ASS'Y.	NO. REQ'D.	MATERIAL		FINISH		TITLE		STAT
DECIMAL DIM.	± .005	1742-119	1	SPEC. ~		SPEC. ~		CABLE -		
FRACTIONAL DIM.	± 1/64							REMOTE TRANSDUCER		
ANGULAR DIM.	± 5'							12-62		SCALE ~
ALL DIMENSIONS GIVEN IN INCHES								FEB 63		STAT
								DWG. NO.		REV.
								1742-123		A

CLEARPRINT 1020

REVISIONS		DESCRIPTION	DATE	BY
A	ISSUED FOR CONSTRUCTION	REV. 10/10/00 PER EC 5860	10/10/00	EC
B	ADDED PER EC 5334	REV. 10/10/00 PER EC 5334	10/10/00	EC
C	REVISED	REV. 10/10/00 PER EC 5334	10/10/00	EC
D	REVISED	REV. 10/10/00 PER EC 5334	10/10/00	EC
E	REVISED	REV. 10/10/00 PER EC 5334	10/10/00	EC
F	ADDED NOTE 7 PER EC 4500	REV. 10/10/00 PER EC 4500	10/10/00	EC
G	ADDED NOTE 6 PER EC 4502	REV. 10/10/00 PER EC 4502	10/10/00	EC
H	ADDED NOTE 5 PER EC 4501	REV. 10/10/00 PER EC 4501	10/10/00	EC
I	ADDED NOTE 4 PER EC 4501	REV. 10/10/00 PER EC 4501	10/10/00	EC
J	ADDED NOTE 3 PER EC 4501	REV. 10/10/00 PER EC 4501	10/10/00	EC
K	ADDED NOTE 2 PER EC 4501	REV. 10/10/00 PER EC 4501	10/10/00	EC
L	ADDED NOTE 1 PER EC 4501	REV. 10/10/00 PER EC 4501	10/10/00	EC



5. 1/2 FINISH REQUIRED PRIOR TO LATING OPERATION.
FOLLOWING FLATING, 1/2 FINISH IS REQUIRED
ALL AROUND.

NOTE 7- CONTINUED-

(3) CURE MOLD AT 100°F 125°F
A PERIOD OF 4 HOURS
AFTER CURE AT 300°F FOR
A PERIOD OF 2 HOURS

NOTE: ASSEMBLY TO BE
CLEANED IN ALCOHOL
PRIOR TO POTTING.

4. EXERCISE EXTREME CAUTION WHEN HANDLING
ASSEMBLIES FOLLOWING THE CEMENTING OPERATION
DUE TO THE EXTREME HEAT OF THE CEMENTING OPERATION.
SUBSEQUENT OPERATIONS: PACKAGE SEPARATELY
AND HANDLE WITH GLOVES OF FINGER COTTS.

7. MOLDING & CURING INSTRUCTIONS:

(1) PRE-HEAT MOLD TO 135°F-150°F
(2) POUR PASTE COMBING 50/50 QUARTZ MIXTURE UNTILL FULL

NOTES

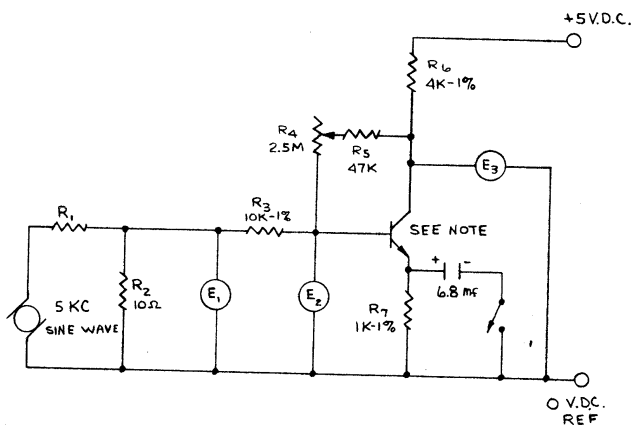
1. FORTING MAT'L TO BE HYVOL #2036 WITH WIREGAGE #3615
2. MOUNT ON HEEDE & TURN OFF EXCESS FORTING TO 1.2500MM.
3. GO TO FINAL DIR. OF 1.230
4. DIR. 5. MREED # MUST BE CONCENTRIC TO EACH OTHER WITHIN .005
6. FINISH .0003 NICKEL .00001 .00002 RHODIUM-GOLD FLASH. PRIOR
TO GOLD FLASHING BUFF SURFACES TO REMOVE ANY BUILD UP
OF PLATING ON EDGES & CORNERS.

TOLERANCES		TEXT ASSY	NO. REQ'D
(UNLESS OTHERWISE SPECIFIED)		1742-22	1
DECIMAL DIM.	$\pm .005$		
FRACTIONAL DIM.	$\pm 1/64$		
ANGULAR DIM.	$\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES			

PRINT ISSUED APR 30 1964

$$\sqrt{\frac{-33}{1742}}$$

TITLE ASSEMBLY- COMMUTATOR (POTTEL			
DATE 3-9-63		SCALE 4:1	
DATE 5 FEB 63	DRG. FILE	DRG. NO.	FILE
RAIL	(	1793-179	



1. ADJUST R_4 FOR E_3 READING OF 3.5V.D.C.
(NO INPUT SIGNAL)
2. TEST CIRCUIT FOR INPUT IMPEDENCE.

IMPEDENCE LIMITS

SWITCH	E_1	E_2 (MIN.)	5KC INPUT IMPEDENCE AT 25°C
OPEN	70MV P-P	40MV P-P	6000Ω MIN.
CLOSED	70MV P-P	10MV P-P	1400Ω MIN.

TEST CIRCUIT

FOR TRANSISTORS Q_1, Q_2, Q_3

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED):
DECIMAL DIM. $\pm .005$
FRACTIONAL DIM. $\pm 1/64$
ANGULAR DIM. $\pm 5^\circ$
ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY. NO. REQ'D.

1742-101 1 EA

SPEC. S. FINISH. S.

W.D.
NO. REQ'D.
1 EACH

DATE 16 NOV 62
SCALE S
DWG. NO. 1742-125-
REV. B

PRINT ISSUED APR 30 1964

TITLE TRANSISTORS SPECIFICATIONS

DATE 16 NOV 62
SCALE S
DWG. NO. 1742-125-
REV. B

SYMBOL	DESCRIPTION	DATE	BY	STATE
A	DRAWN PER EC 2469	1742-125-	B	5/20/63
B	REMOVED 150 VALUE FOR h_{FE} MAX @ 0°C FOR 1742-125-Q1. PER E.C. 3376			

TRANSISTOR REQUIREMENTS

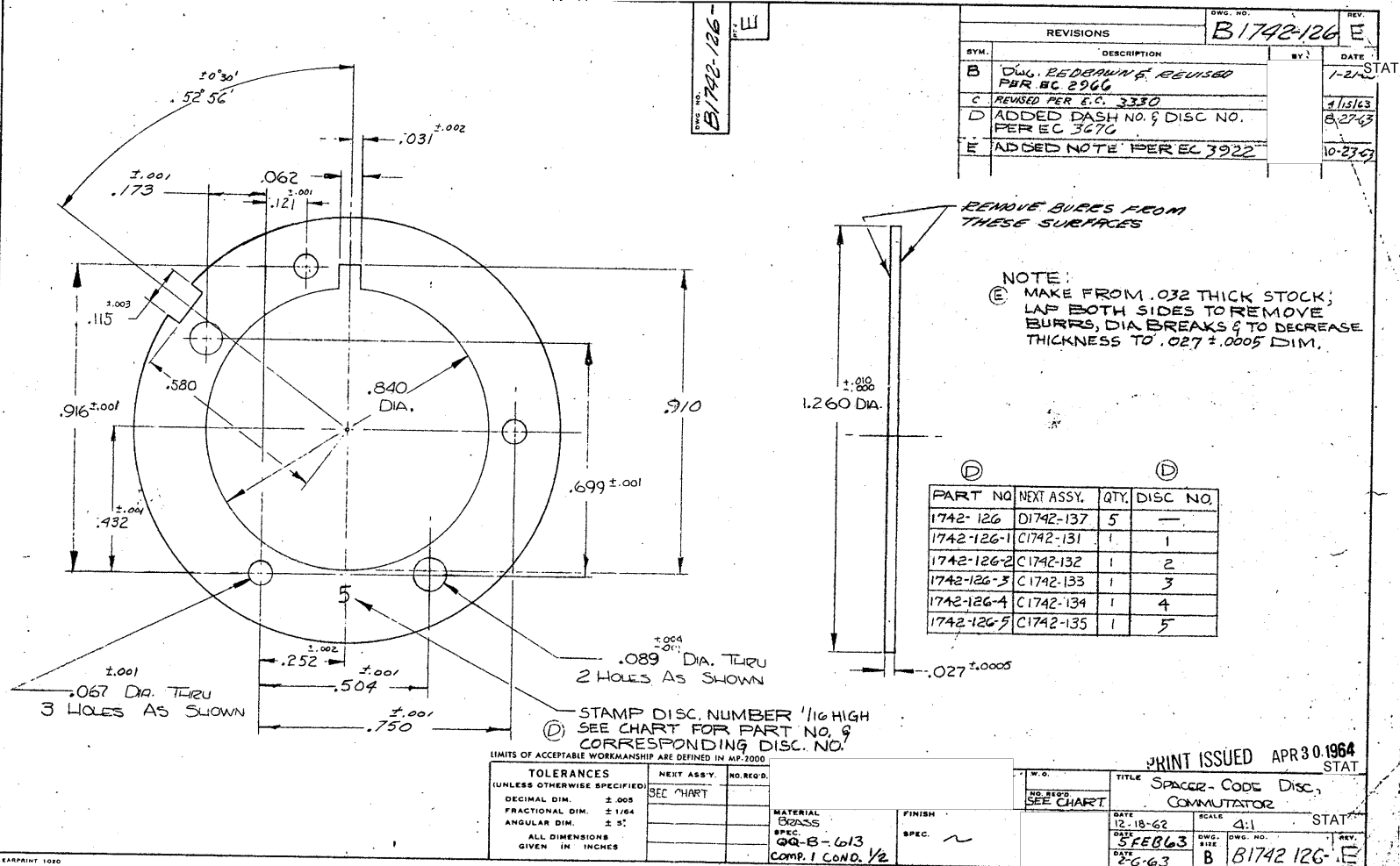
GENERAL:

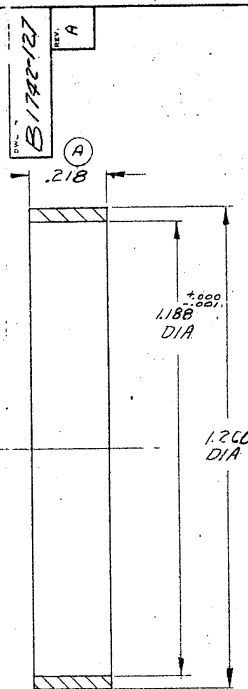
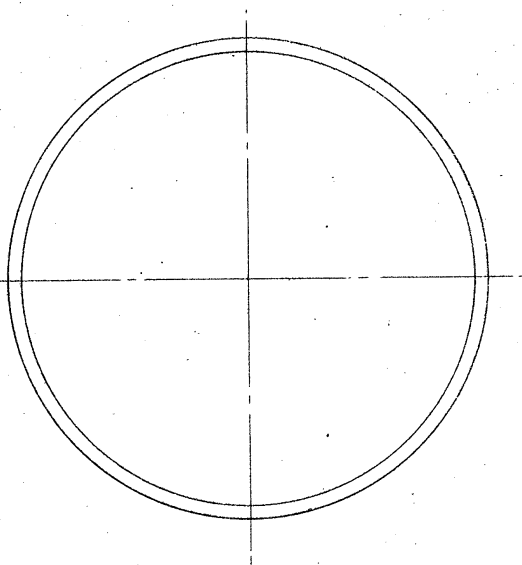
SILICON TRANSISTORS
OPERATING TEMPERATURE RANGE
STORAGE TEMPERATURE RANGE
MAX. POWER DISSIPATION

CASE SIZE TO-46
-40°C TO +60°C
-50°C TO +100°C
25°C AMBIENT - 75MW.

SPECIAL:

TRANSISTOR NUMBERS	1742-125-Q1	1742-125-Q2	1742-125-Q3
TYPE	NPN	NPN	PNP
MAX. V_{CB0}	30V.	30V.	-15V.
MAX. V_{CE0}	20V.	20V.	-10V.
MAX. V_{EB0}	5V.	5V.	-3V.
I_C & V_{CE} FOR h_{FE} MIN & MAX	$I_C = .2$ MA. $V_{CE} = 5$ V.	$I_C = .5$ MA. $V_{CE} = 5$ V.	$I_C = .4$ MA. $V_{CE} = -5$ V.
h_{FE} MAX. +60°C	~	240	150
h_{FE} MIN. -40°C	30	20	15
INPUT IMPEDENCE	SEE TEST CIRCUIT	SEE TEST CIRCUIT	NOT REQ'D.





REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	WAS 2004 NOTE REMOVE PER EC 2915	ESH	1-21-63

 DWG. NO. **B1742-127** REV. **A**

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM. $\pm .005$
FRACTIONAL DIM. $\pm 1/64$
ANGULAR DIM. $\pm 5^\circ$
ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY.	NO. REQ'D.
1242-137	1

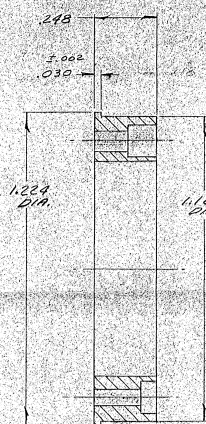
MATERIAL
BRASS
SPEC
QQ-B-626
COMP. 22 COND. Y2

SPEC.

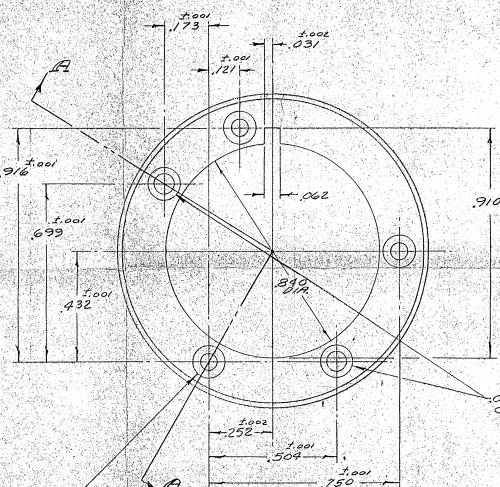
 W.D.
NO. REQ'D.
1
TITLE **RING - TOP COMMUTATOR** STATDATE **10/31/62** SCALE **1:1**DATE **5 FEB 63** DWG. NO. **1742-127** REV. **A**DATE **12-6-63** DWG. NO. **B** REV. **A**

REVISIONS		REV. NO.	REV.
		C1742-128 D	
ITEM	DESCRIPTION	BY	DATE
B	DWG. RECONSTRUCTION		4-28-63
	PER E.C. 2564		
C	EXPORT MARK WAS EXPORT PER E.C. 3404		4-11-63
D	PER 125% OF TO 1361.002 PER EC 3839		9-4-63

STAT



SECTION A-E



1.004
-001
-076 DIA. THEU.
C'BORE .125 DIA. 11.6 DEEP
2 HOLES AS SHOWN

1.001
0.067 DIA THRU
CROSS 136 5.002 DIA 0.062 DEEP
3 HOLES (D)

PRINT ISSUED APR 30 1964

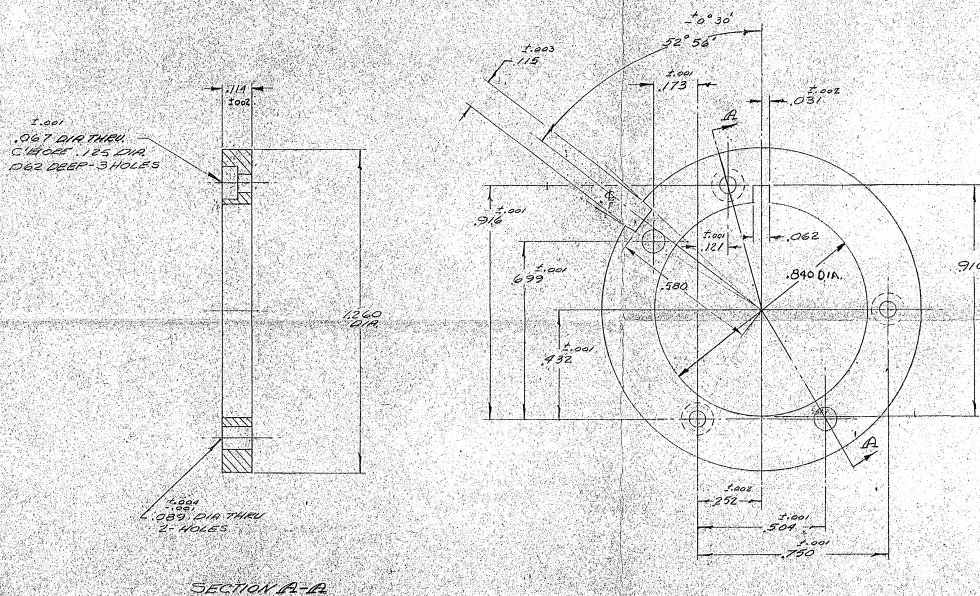
[illegible]

STAT

STAT

REVIEWS		REC NO.	REV
		C1742-130	9
SYM.	DESCRIPTION	BY	DATE
C	RECEIVED & REVISED PER E.C. 333		1/22/60
D	REVISED PER E.C. 333		1/15/60

STAT



SECTION A-A

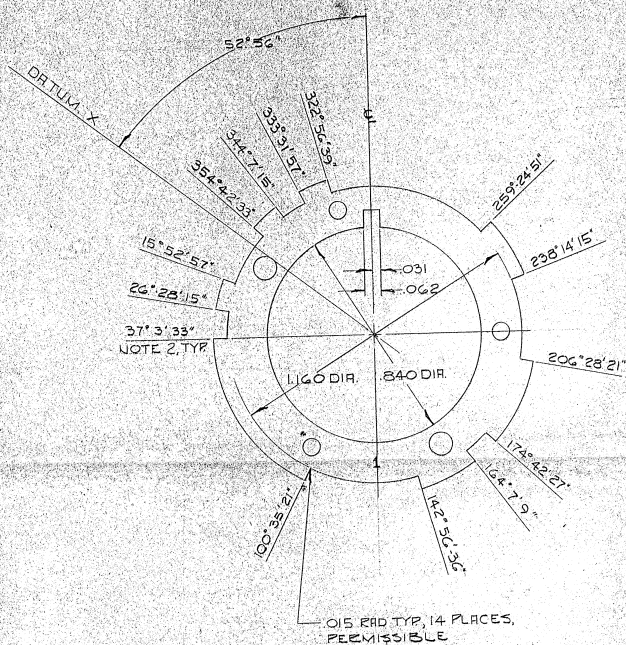
PRINT ISSUED APR 30 1964

UNITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN AIR 200					
TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. ± .005 FUNCTIONAL DIM. ± .015 ANGULAR DIM. ± .5° ALL DIMENSIONS GIVEN IN INCHES		REAT-AST- RE-MAN-	DATE 1982-187	TITLE EING-BA55 COMMUTATOR	DATE 1982-187
DRAWING 100-8-644 COMP. 2362401/3	REFC TL	DATE 1982-187	DATE 1982-187	DATE 1982-187	DATE 1982-187

STAT

STAT

REVISIONS		DATE	BY
1	REVISED AND REDRAWN WITH EXTENSIVE CHANGES EC4592	5-30-64	E

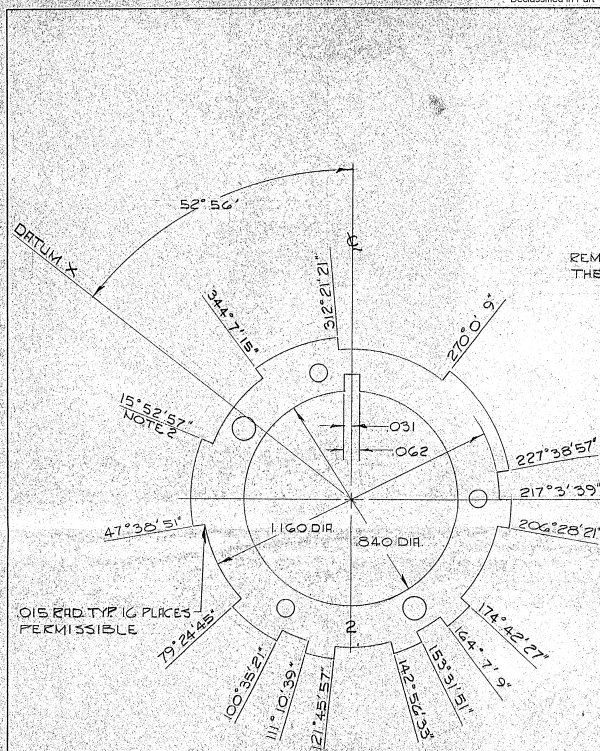


NOTE:
1. MAKE FROM 1742-126-1
2. DIMENSIONS SHOWN, TO BE MEASURED COUNTER-CLOCKWISE FROM DATUM X.

PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE SHOWN IN AS-2000		NEXT ASSY. NUMBER		W.D.		TITLE	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		1742-137		AD. REQ.		DISC #1-CODE COMMUTATOR	
DECIMAL DIM.	± .005					DATE	
FRACTIONAL DIM.	± .004					5-30-64	
ANGULAR DIM.	± .30°					DATE	
ALL DIMENSIONS GIVEN IN INCHES						C 1742-137 E	
MATERIAL SPEC. SEE NOTE 1				FINISH SPEC.		APPROVED	
						DATE	

PRODUCTION DRAWING CONTROL



NOTES
 1. MAKE FROM 1742-126-2
 2. DIMENSIONS SHOWN TO BE MEASURED COUNTER-
 CLOCKWISE FROM DATUM X.

REMOVE BURS FROM
 THESE SURFACES

REVISIONS			
REV.	DESCRIPTION	BY	DATE
E	REVISED AND REDRAWN WITH EXTENSIVE CHANGES-EC4592		8-30-64

DISC NO.
 C1742-132
 REV.
 E

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MIL-2000	
TOLERANCES UNLESS OTHERWISE SPECIFIED	NEXT ASSY. NO. REQ'D
DECIMAL DIM. ± .005	1742-137 1
FRACTIONAL DIM. ± .005	
ANGULAR DIM. ± .30°	
ALL DIMENSIONS GIVEN IN INCHES	

MATERIAL
 SEE NOTE 1
 SPEC.

FINISH
 SPEC.

PRINT ISSUED APR 30 1964

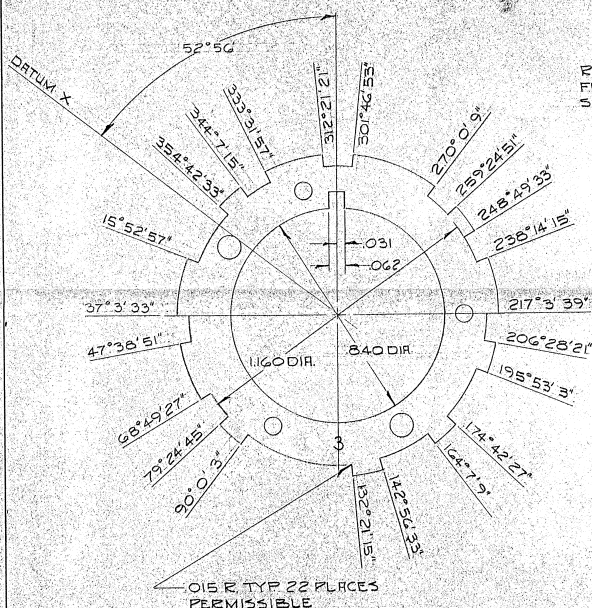
PRODUCTION DRAWING CONTROL

STAT

STAT

STAT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
E	REDRAWN & REDRAWN WITH EXTENSIVE CHANGES-EC439		3-31-64



REMOVE ALL BURRS FROM THESE SURFACES

REV. NO. C1742-133
E

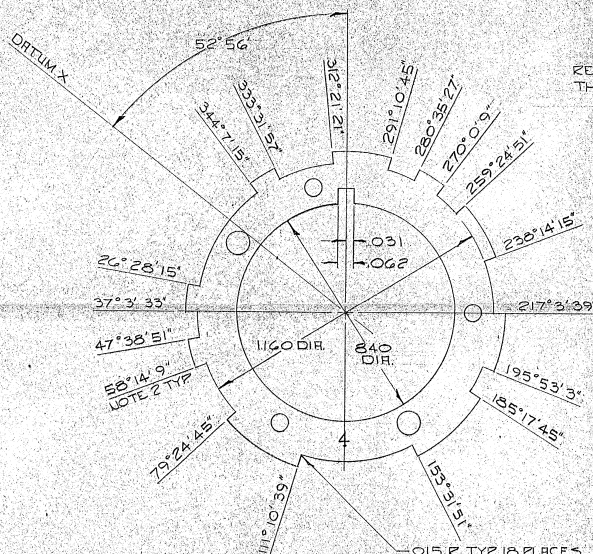
NOTES
1. MAKE FROM 1742-126-3
2. DIMENSIONS SHOWN TO BE MEASURED COUNTER-CLOCKWISE FROM DATUM X.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MIL-STD-2000			
TOLERANCES UNLESS OTHERWISE SPECIFIED	NEST ASBY	NO. REQD	
DECIMAL DIM. 2.000	742-137	1	
FRACTIONAL DIM. 1/16			
ANGULAR DIM. 30'			
ALL DIMENSIONS GIVEN IN INCHES			

PRINT ISSUED APR 30 1964			
N.O.	TITLE	DISC #3 CODE	COMMUTATOR
NO. REQD	DATE	REV.	REV.
31-64	3-31-64	4	
APPROVED	DATE	REV.	REV.
		C 1742-133	E

PRODUCTION DRAWING CONTROL

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	REDRAWN & REVISED WITH EXTENSIVE CHANGES EG459		3-31-64



REMOVE BURRS FROM THESE SURFACES

1.260 DIR.

0.0270

NOTES
1. MAKE FROM 1742-126-4
2. DIMENSIONS SHOWN TO BE MEASURED COUNTER-CLOCKWISE FROM DATUM X.

0.0152 TYP IS PLACES PERMISSIBLE

PRINT ISSUED - APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE SHOWN IN HP. 2000			
TOLERANCES	NEAT ASBY.	NO. REQ'D.	
UNLESS OTHERWISE SPECIFIED:	1742137	1	
DECIMAL DIM. ± .005			
FRACTIONAL DIM. ± .005			
ANGULAR DIM. ± 30'			
ALL DIMENSIONS GIVEN IN INCHES			
SEE NOTE 1			
APPROVED	DATE	BY	REV.
		C	1742-134 F

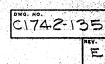
PRODUCTION DRAWING CONTROL

STAT

STAT

STAT

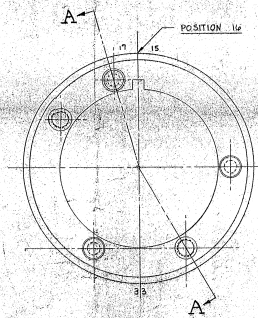
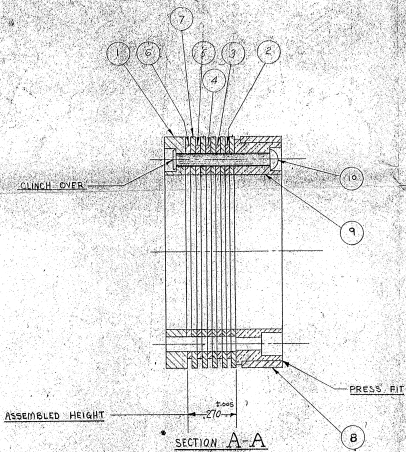
STAT



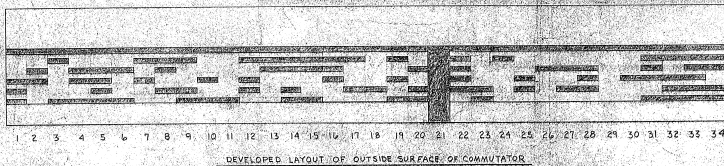
PRINT ISSUED APR 30 1984

LIMITS OF ACCEPTABLE WORKMANSHIP ARE OBTAINED IN MP-2000				T.D.		TITLE	
TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. ± .005 FRACTIONAL DIM. ± 1/32 ANGULAR DIM. ± 30'				NEXT ASSY. NO. REQ'D.		DISC #5 CODE	
ALL DIMENSIONS GIVEN IN INCHES				1742-137 1		COMMUTATOR	
MATERIAL		FINISH		PART NO.		PART	
SEE NOTE 1		SPEC.		DATE		QTY.	
SPEC.		SPEC.		APPROVED		C 1742-135 E	

REVISIONS		DATE
REVISED PER E.C. 2534		12-24-64
B. SPACING CHANGED ON 2 HOLES		12-24-64
C. RIVET LENGTH CHANGED E.C. 2782		12-24-64
D. REVISED PER E.C. 2779		12-24-64
E. REVISED NOTE 3 E.C. 1212		5-15-65



- NOTES:
1. STACK PARTS ON AN ARBOR USING THE RECTANGULAR NOTCH & THREE RIVET HOLES FOR ALIGNMENT.
 2. RIVET PARTS TOGETHER.
 3. APPLY THIN COATING OF PRESS BOND #98 ONTO THE INSULATING RING. REMOVE EXCESS ADHESIVE.
 4. INSPECT COMMUTATOR TO MAKE SURE SEGMENTS ARE LOCATED IN THEIR CORRECT POSITION. USE DEVELOPED LAYOUT.



SHADED AREAS ARE RECESSED

PRINT ISSUED MAY 1 1964

ITEM	NUMBER	QTY	DESCRIPTION
10	A18C-014-26	3	RIVET- OVAL HEAD 1/8 DIA X 1/2
9	C1742-128	1	RING- INSULATOR COMMUTATOR
8	B1742-127	1	RING- TOP COMMUTATOR
7	D1742-126	6	SPACER- CODE DISC
6	C1742-136	1	DISC- CODE COMMUTATOR (1)
5	C1742-134	1	DISC- CODE COMMUTATOR (2)
4	C1742-133	1	DISC- CODE COMMUTATOR (3)
3	C1742-132	1	DISC- CODE COMMUTATOR (4)
2	C1742-131	1	DISC- CODE COMMUTATOR (5)
1	C1742-130	1	RING- BASE COMMUTATOR

TOLERANCES	UNIT	REMARKS
DECIMAL DIMS	0.001	
ANGULAR DIMS	1/16	
ALL DIMENSIONS	IN INCHES	

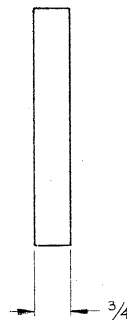
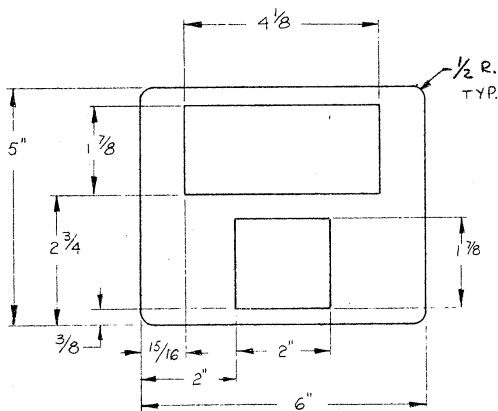
ITEM	NUMBER	QTY	DESCRIPTION
1	ASSEMBLY	1	COMMUTATOR (RECURRING)
2	1742-124	1	1742-124
3	1742-123	1	1742-123
4	1742-122	1	1742-122
5	1742-121	1	1742-121

PRODUCTION DRAWING CONTROL

6 5 1/2" RAD TYP.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">REVISIONS</td> <td style="width: 20%;">DWG. NO.</td> <td style="width: 10%;">REV.</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">1742-138</td> <td></td> </tr> <tr> <td style="width: 10%;">SYM.</td> <td style="width: 60%;">DESCRIPTION</td> <td style="width: 10%;">BY</td> <td style="width: 10%;">DATE</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISIONS		DWG. NO.	REV.			1742-138		SYM.	DESCRIPTION	BY	DATE				
REVISIONS		DWG. NO.	REV.																
		1742-138																	
SYM.	DESCRIPTION	BY	DATE																

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN AIP-2000					
TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5'$ ALL DIMENSIONS GIVEN IN INCHES	NEXT ASSY. 1742-141 1742-143	NO. REQ'D. 1 1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">MATERIAL URETHANE FOAM SPEC. COLOR: GREEN</td> <td style="width: 60%;">FINISH SPEC. </td> </tr> </table>	MATERIAL URETHANE FOAM SPEC. COLOR: GREEN	FINISH SPEC.
MATERIAL URETHANE FOAM SPEC. COLOR: GREEN	FINISH SPEC.				

W.O. NO. 2		TITLE PAD-LINER, SOLID (TRANSPORT CASE)		STAT
DATE 11-13-62	SCALE 1/1	DATE 3 FEB 63	DWG. NO. 1742-138	REV.
DATE 11/6/62	DWG. SIZE B	DATE 11/6/62	DWG. NO. 1742-138	REV.



REV. A
B1742-139

REVISIONS		DWG. NO.	REV.
SYM.	DESCRIPTION	BY	DATE
A	REVISED & REDRAWN PER EC 3382		STAT.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. ± .005	1742-141	1
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5'		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL
SPEC. URETHANE
FOAM
GREEN

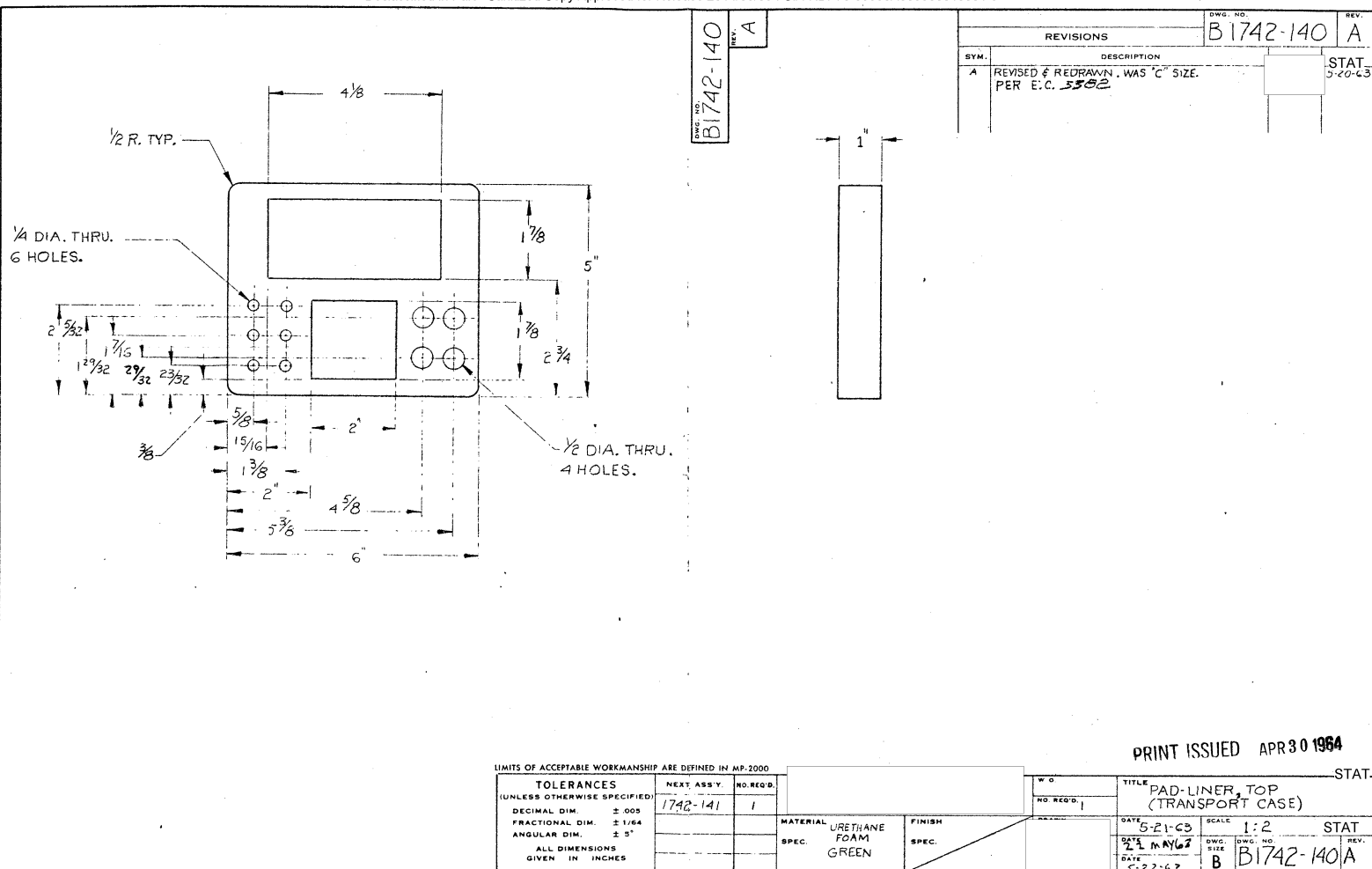
FINISH
SPEC.

W.O.
NO. REQ'D.

PRINT ISSUED APR 30 1964

TITLE PAD-LINER, MIDDLE
(TRANSPORT CASE) STAT

DATE	DWG. NO.	SCALE	STAT
21 MAY 63	B	1:2	STAT
5-22-63	B	B1742-139	REV. A



DWG. NO.		REV.
1742-141		A

REVISIONS		DWG. NO.	REV.
SYM.	DESCRIPTION	1742-141	A
A	PICTURE CHANGE PER EC. 3382		

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NO. REQ'D.
DECIMAL DIM. $\pm .005$	1
FRACTIONAL DIM. $\pm 1/64$	
ANGULAR DIM. $\pm 5'$	
ALL DIMENSIONS GIVEN IN INCHES	

MATERIAL		FINISH	
SPEC.	~	SPEC.	~

TITLE		SCALE		DATE	
ASSEMBLY- PAD, STAT		FULL		11-14-62	
LINER (TRANSPORT CASE)				5 FEB 63	
				DATE 11-15-62	
				B 1742-141	
				A	

3 M BRAND ADHESIVE JOIN WITH EC 826

PRINT ISSUED APR 30 1964

PRODUCTION DRAWING CONTROL

REVISIONS		DWG. NO.	REV.
		A1742-142	A
SYM.	DESCRIPTION	BY	DATE
A	REDCAWN WAS A SCREWDRIVER PER EC 3579	BSH	8/6/63

ITEM	PART NUMBER	QTY.	DESCRIPTION

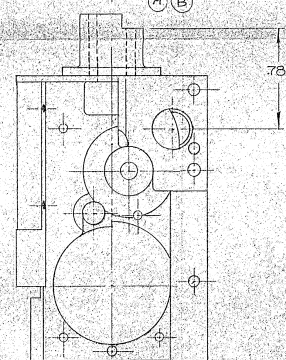
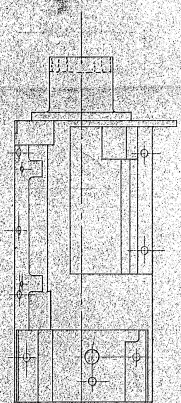
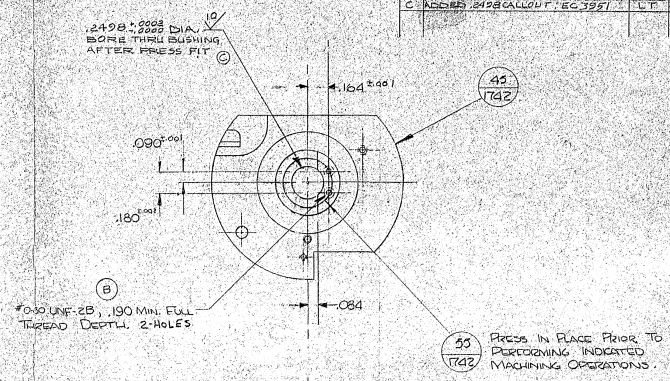
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000		W.O.		TITLE		STAT	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	NO. REQ'D.		DATE	
DECIMAL DIM. ± .005		1742-148	1	2		8/6/63	
FRACTIONAL DIM. ± 1/64						SCALE 1/1	
ANGULAR DIM. ± 5°						STAT	
ALL DIMENSIONS GIVEN IN INCHES		MATERIAL EPON GLASS BOARD		FINISH		DATE	
		SPEC. MIL-P-13949		SPEC. S		8 AUG 63	
		TYPE-FL-GE				DWG. NO.	
						1742-142	
						REV.	
						A	

STAT

PRINT ISSUED MAY 1 1984

FIG.	TITLE		
1	ASSEMBLY-TRANSPORT		
FIG. REQ'D	CASE, TC-12 ACCESSORIES		
DESIGN	DATE	SCALE	
10088R	11-10-62		
	6 FEB 63	REV.	
	DATE	REV.	
	11-10-62	C	1742-142

REVISIONS			
REV	DESCRIPTION	BY	DATE
A	VIEW OF COMMUTATOR 100% CHANGED PER EC 3357	PGH	2-7-63
B	REVOLVED HOLES & CUT 180° PER EC 3357	AT	5/15/63
C	ADDED .8428 CALLOUT, EC 3357	LT	12-20-63



C1742-145
C

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN WP-3000

TOLERANCES
UNLESS OTHERWISE SPECIFIED
DECIMAL DIM. ±.005
FRACTIONAL DIM. ±.005
ANGULAR DIM. ±.5°
ALL DIMENSIONS
UNLESS IN INCHES

1742-13
1

MATERIAL
SPEC. 2

FINISH
SPEC. 2

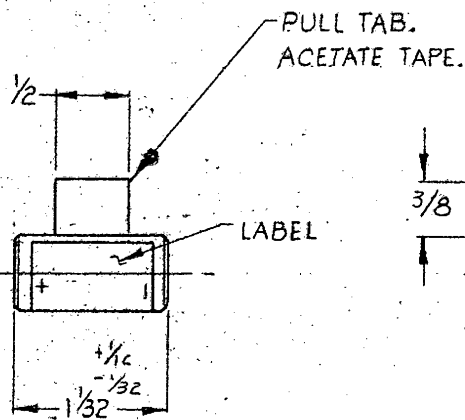
1742-13
1
C1742-145
C

PRINT ISSUED APR 30 1964

ASSEMBLY-MAIN
FRAME AND BUSHING
2:1

PROJ. DRAWING CONTROL

STAT
STAT



REVISIONS		DWG. NO.	REV.
		A1742-146	D
SYM.	DESCRIPTION	BY	DATE
C	REVISED & REDRAWN. WAS "A" SIZE. PER E.C. 3391		STAT 63
D	ADDED NOTE 3 PER EC 3850		0-10-63

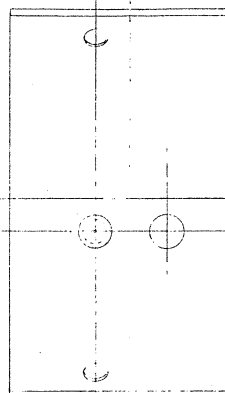
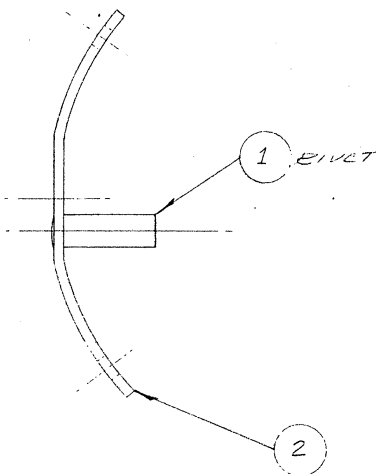
SPECIFICATIONS	
NO LOAD VOLTAGE -	7.0
END VOLTAGE -	4.5
CELL TYPE -	675 R
CAPACITY, MAH. -	160
CONNECTION -	SERIES
CASE TYPE -	CARDBOARD
TERMINALS -	CELLS
NO. OF CELLS -	5

NOTES:

1. LABEL MUST SHOW VOLTAGE, POLARITY, PART NO., & MILITARY CODE DATE.
2. INFORMATION ON THIS DWG. PER MALLORY BATTERY CO. DWG. NO. SR 2987
- 3 MALLORY PART NO 303383

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W. O.		TITLE		STAT.
DECIMAL DIM.	± .005	1742-143	4	NO. REQ'D. 5		BATTERY		
FRACTIONAL DIM.	± 1/64	1742-15	1			DATE 5-23-63	SCALE 1:1	STAT
ANGULAR DIM.	± 5'					DATE 24 MAY 63	DWG. SIZE A	
ALL DIMENSIONS GIVEN IN INCHES						DATE 5-23-63	DWG. NO. A1742-146	REV. D



DWG. NO. **B 1742-147**

REV.

REVISIONS			
SYM.	DESCRIPTION	BY	DATE

DWG. NO. **B 1742-147**

REV.

PRINT ISSUED APR 30 1964			
2	B 1742-77	1	COVER - MICROSWITCH
1	B 1742-B5	1	STUD - MICROSWITCH
ITEM	PART NUMBER	QTY.	DESCRIPTION

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN HP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED):
DECIMAL DIM. $\pm .005$
FRACTIONAL DIM. $\pm 1/64$
ANGULAR DIM. $\pm 5^\circ$
ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY. NO. **1742-L13**
NO. REQ'D. **1**

MATERIAL
SPEC. **2**

FINISH
SPEC. **✓**

W.O. NO. REQ'D. **1**

TITLE **ASSEM - COVER, MICROSWITCH** STAT

DATE **2-7-63** SCALE **4:1**
DATE **7 FEB 63** DWG. NO. **B 1742-147**
DATE **2-7-63** SIZE **B** REV.

REVISIONS		DWG. NO.	REV.
		A1742-148	D
SYM.	DESCRIPTION	BY	DATE
C	REDRAWN WAS HUB-DETENT PER EC 3577		STAT 13
D	.010 WAS .020 PER EC 3782		DIEP 63

$\frac{1}{16}$ SPOT FACE .010 DEEP
(APPROX. CENTERED) FILL WITH
WHITE WIFE IN PAINT

2 CEMENT WITH EC 826-3M BRAND

ITEM	PART NUMBER	QTY.	DESCRIPTION
2	A1742-142	1	SPACER, TRANSDUCER
1	A1742-117	1	TRANSDUCER

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	TITLE	STAT
DECIMAL DIM.	± .005	1742-15	1			ASSEM.	
FRACTIONAL DIM.	± 1/64	1742-114	1			TRANSDUCER	
ANGULAR DIM.	± 5'			SPEC. S	SPEC. S		
ALL DIMENSIONS GIVEN IN INCHES							

DATE	SCALE	DWG. NO.	REV.
8/6/63	A	1742-148	D
8 AUG 63			
8/8/63			

PRODUCTION DRAWING CONTROL

		PART NO.		QUANTITY		PART NO.		QUANTITY		PART NO.		QUANTITY		PART NO.		QUANTITY		PART NO.		QUANTITY		PART NO.		QUANTITY		I.D. ±.005		O.D. ±.005		LOCATION	
		.0005 THK.				.001 THK.				.002 THK.				.003 THK.				.005 THK.				.010 THK.									
TOTAL	-1	2	-2	2	-3	2	-4	2	-5	2	-6	4	.0937	.187	37 TOOTH GEAR																
	/	/	/	/	/	/	/	/	/	/	3	GOV. ASSY (SMALL BRNG)																			
	/	/	/	/	/	/	/	/	/	2	IDLER SHAFT																				
	4		4		4		4		4		9																				
TOTAL	-13	1	-14	1	-15	1	-16	1	-17	1	-18	2	.0937	.150	IDLER SHAFT																
	/	/	/	/	/	/	/	/	/	3	GOV. ASSY																				
	2		2		2		2		2		5																				
TOTAL	-19	1	-20	1	-21	1	-22	1	-23	1	-24	1	.315	.341	CLUTCH HOUSING																
	/	/	/	/	/	/	/	/	/																						
TOTAL	-25	2	-26	2	-27	2	-28	2	-29	2	-30	1	.750	.875	OUTPUT SPOOL																
	-31	2	-32	2	-33	2	-34	2	-35	2	-36	2	.041	.125	ACTUATOR																
	-37	1	-38	1	-39	1	-40	1	-41	1	-42	1	.250	.375	CLUTCH																
	-43	1	-44	1	-45	1	-46	1	-47	1	-48	1	.378	.422	GOV. ASSY (LG. BRNG)																
TOTAL	-50	1	-51	1	-52	1	-53	1	-54	1	-55	1	.110	.156	PAWL																
	-7	2	-8	2	-9	2	-10	2	-11	2	-12	1	.125	.187	TAKEUP SPOOL																
	2		2		2		2		2		1	STOP GEAR.																			
	4		4		4		4		4		2																				
TOTAL	54	1	55	1	56	1	57	1	58	1	59	1	.0785	.150	LEADSCREW																

DWG. NO. 1742-149
 REV. 01

REVISIONS		DWG. NO.	REV.
SYN.	DESCRIPTION	BY	DATE
A	ADDED 1 MORE REQD TO #13, 14, 15, 16, 17 & 18 FOR LEADSCREW PER E.C. 3328		5-28-63 STAT
B	DELETED ONE (QTY) FROM -13, -14, -15, -16, -17 & -18 - ADDED 1 EA - 54, -55, -56, -57, -58, & 59 EC 4569		3-26-64

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-1000

TOLERANCES	NEXT ASSY.	NO. REQD.
(UNLESS OTHERWISE SPECIFIED)	1742-15	45
DECIMAL DIM. ± .005		Reqd.
FRACTIONAL DIM. ± 1/64		
ANGULAR DIM. ± 5°		
ALL DIMENSIONS GIVEN IN INCHES		

MATERIAL	FINISH
STAINLESS STEEL	
SPEC TYPE 302	
SPEC STRIP	
ML-5-5059	

W.O.	TITLE	SCALE
NO. REQD. 15 REQD.	SHIMS	
DATE 2/11/63		
DATE 23 MAY 63		
DATE 6-22-63		

DWG. NO.	DWG. SIZE	REV.
B	B	B
1742-149		

PRINT ISSUED APR 30 1964

CLEARPRINT 1000

Declassified in Part - Sanitized Copy Approved for Release 2014/03/05 : CIA-RDP78-03330A003300010001-9

JUNCTION DRAWING CONTROL

DC

REVISIONS		DWG. NO.	REV.
		A1742-150	A
SYM.	DESCRIPTION	BY	DATE
A	.034 $\pm .000$ -.002 WAS .034 $\pm .000$ -.004 PEREC 4520	LT	3-13-64

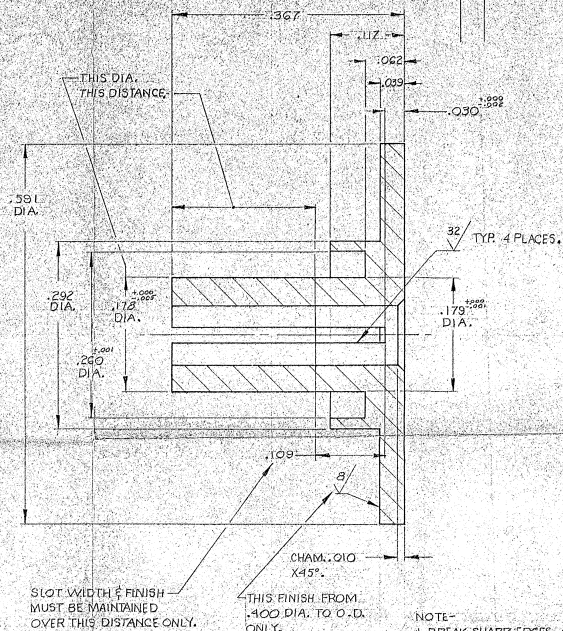
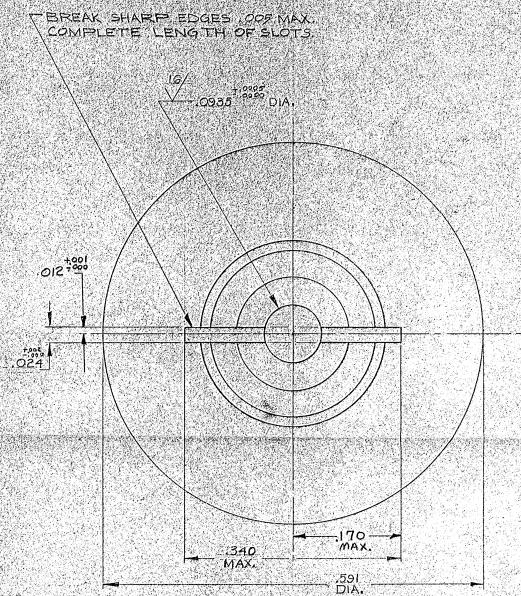
Technical drawing of a pin-link governor (long). The main view shows a cylindrical part with a total length of .500. It features a chamfer of .010 at 45 degrees typical. A section line A-A is shown. A detail view of a hole is shown with a diameter of .040 and a tolerance of +.0000/-0.0005. Other dimensions include .157 typical, .038 typical, .034 diameter with a tolerance of +.000/-0.002 typical, and .062 typical. A fillet with a radius of 8 is shown with a tolerance of 2 places typical.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000				W. O.		TITLE		STAT
TOLERANCES (UNLESS OTHERWISE SPECIFIED): DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES				NEXT ASS'Y.	NO. REQ'D.	PIN-LINK GOVERNOR (LONG)		STAT
				742-53	2			
				MATERIAL STAINLESS STEEL		FINISH PASSIVATE		
				SPEC. 416		SPEC.		
				GROUND STOCK		MIL-S-5002		
				COND. H				
				NO. REQ'D.		DATE		
				2		5-3-63		
				DATE		SCALE		
				10 MAY 63		10:1		
				DATE		DWG. NO.		
				5-16-63		A1742-150		
				REV. A		REV. A		

REVISIONS		DWG. NO.	REV.
		A1742-151	A
SYM.	DESCRIPTION	BY	DATE
A	.034 ^{+.000} / _{-.002} WAS .034 ^{+.000} / _{-.004} EC 4519	LT	3-13-64

Technical drawing of a pin-link governor (short). The drawing shows a side view and a cross-section. The side view has dimensions: total length .300, left end diameter .038 TYP., a step diameter .045 TYP., a fillet radius .062 R. TYP., and a right end diameter .034^{+.000}/_{-.002} DIA. TYP. The cross-section shows a diameter of .040^{+.0000}/_{-.0005} DIA. A chamfer of .010 X 45° TYP. is indicated on the left end. A note '8' is near the fillet.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000				W. O.	TITLE			
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	2	PIN-LINK GOVERNOR (SHORT) STAT			
DECIMAL DIM.	± .005	1742-53	2		DATE 5-3-63 SCALE 10:1 STAT			
FRACTIONAL DIM.	± 1/64				DATE 16 MAY 63 DWG. NO. A1742-151 REV. A			
ANGULAR DIM.	± 5'				DATE 5-16-63			
ALL DIMENSIONS GIVEN IN INCHES								
		MATERIAL	FINISH					
		STAINLESS STEEL	PASSIVATE					
		SPEC. 416	SPEC. MIL-S-5002					
		GROUND STOCK						
		QQ-S-763 CON. H						

[illegible]

NOTE-
1. BREAK SHARP EDGES .005 MAX.

REV. A

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000		
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.
DECIMAL DIM. $\pm .003$	1742-53	1
FRACTIONAL DIM. $\pm 1/64$		
ANGULAR DIM. $\pm 5^\circ$		
ALL DIMENSIONS GIVEN IN INCHES		

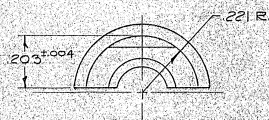
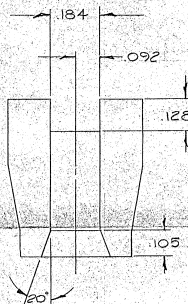
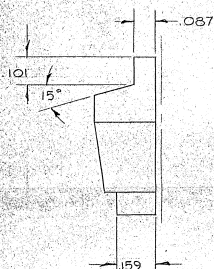
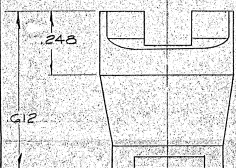
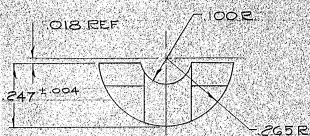
[illegible]STAT
STAT

REVISIONS				DWG. NO.	REV.
				A1742-153	
SYM.	DESCRIPTION	BY	DATE		

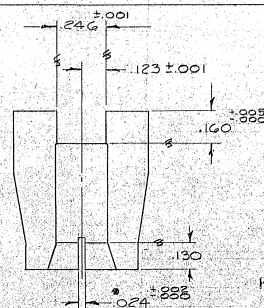
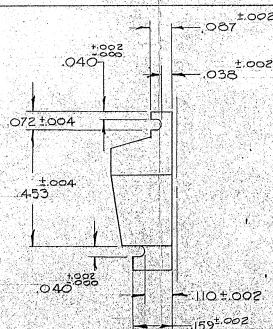
NOTE-
1. REMOVE BURRS & SHARP EDGES.
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	DATE	SCALE	DWG. NO.	REV.
DECIMAL DIM.	± .005	1742-53	2	STAINLESS STEEL	PASSIVATE	5-3-63	10:1	A1742-153	
FRACTIONAL DIM.	± 1/64			301		16 MAY 63			
ANGULAR DIM.	± 5°			MIL-S-5059		5-16-63			
ALL DIMENSIONS GIVEN IN INCHES				COND 3/4 OR FULL HARD	MIL-S-5002				

REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	ADDED CASTING DIM - EC 3421	IT	6-15-63
B	REVISED & REDRAWN WITH EXTENSIVE CHANGES EC 4516		3-18-64
C	ADDED NOTE TO MACHINED DETAIL - EC 4545		3-25-64



CASTING



MACHINED

NOTE: REMOVE ALL BURS - BREAK ALL SHARP EDGES & CORNERS .005 MAX.

TOLERANCES		NEAT ASST.	NO. REV.
UNLESS OTHERWISE SPECIFIED		1742-53	2
DECIMAL DIM.	± .005		
FRACTIONAL DIM.	± .004		
ANGULAR DIM.	± 5°		
ALL DIMENSIONS GIVEN IN INCHES			

MATERIAL	FINISH
TIN BRONZE	
ALLOY #40	

DRAWN		CHECKED	
DATE	BY	DATE	BY
3-15-64	41		
DATE	BY	DATE	BY
3-15-64	41		

PRODUCTION DRAWING CONTROL

REVISIONS				DWG. NO.	REV.
SYM.	DESCRIPTION	BY	DATE		
				A1742-155	

10/
SURFACE FINISH
OF WIRE.

1742-53

1

MIDDLETOWN, CONNECTICUT

MATERIAL: STAINLESS STEEL
SPEC. 88-W-423, COMP
FS 302, COND B

FINISH: PASSIVATE
SPEC. MIL-W-5002

DATE: 3-6-63
DATE: 16 MAY 63
DATE: 5-16-63

SCALE: 10:1

DWG. NO.: A1742-155

REV. B

STAT

STAT

DC

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM. $\pm .005$
 FRACTIONAL DIM. $\pm 1/64$
 ANGULAR DIM. $\pm 5^\circ$

ALL DIMENSIONS
 GIVEN IN INCHES

REVISIONS				DWG. NO.	REV.
SYM.	DESCRIPTION	BY	DATE	A1742-156	

.098 DIA. MIN.

1/4 APPROX.
FREE LENGTH

.016
WIRE DIA.

SPRING DATA

MAX. SOLID HT. - .112

TOTAL COILS - 7

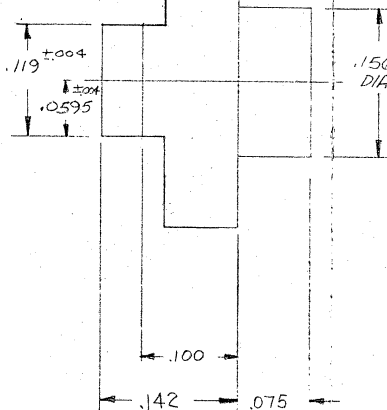
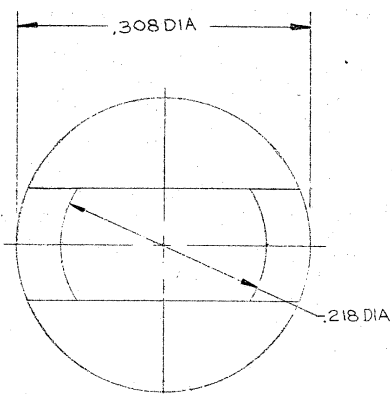
ENDS SQUARED & GROUND

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

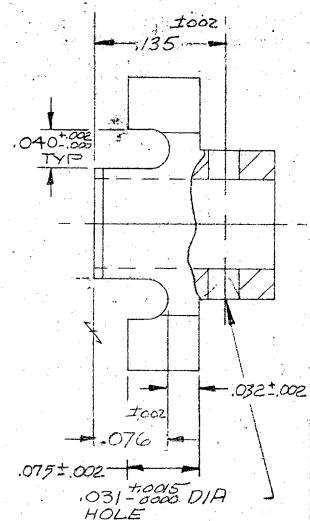
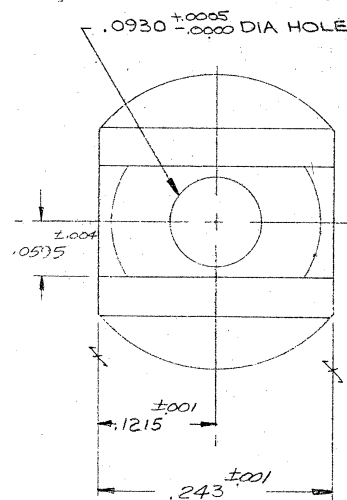
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	W.O.	TITLE	DATE	SCALE	STAT
DECIMAL DIM. ± .005	1742-53	1	MUSIC WIRE	SPEC.	NO. REQ'D. 1	SPRING - COMPRESSION GOVERNOR	5-6-63	10/1	STAT
FRACTIONAL DIM. ± 1/64							16 MAY 63	DWG. SIZE A	DWG. NO. A1742-156
ANGULAR DIM. ± 5°							5-16-63		
ALL DIMENSIONS GIVEN IN INCHES									

DWG NO.
B1742-157

REVISIONS		DWG. NO.	REV.
		B1742-157	B
SYM.	DESCRIPTION	BY	DATE
A	REDRAWN PER EC 3423	JT	6/5/63
B	RELOCATED SLOT DIMS TO MACHINE DETAIL PER EC 4521	LT	3-13-64



CASTING

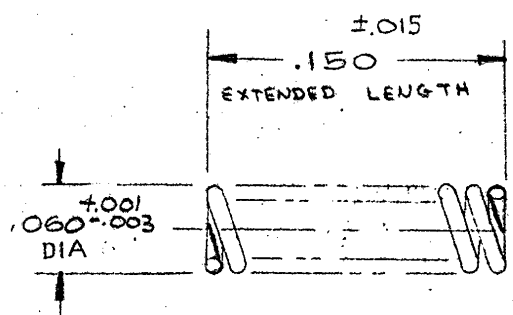


MACHINED

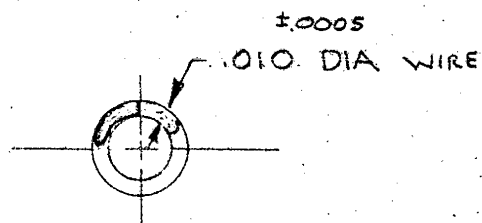
PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	DRAWN	DATE	SCALE	DWG. NO.	STAT.
DECIMAL DIM.	± .005	1742-53	1	TIU BRONZE		JT	6/5/63	10/1	1742-151	B
FRACTIONAL DIM.	± 1/64			ALLOY # 40			6 JUN 63			
ANGULAR DIM.	± 5°									
ALL DIMENSIONS GIVEN IN INCHES										



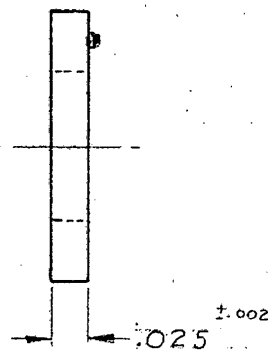
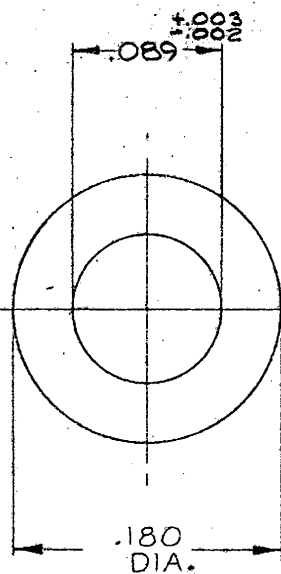
REVISIONS		DWG. NO.	REV.
		A1742-158	
SYM.	DESCRIPTION	BY	DATE



8 FULL COILS
GROUND & SQUARE ENDS

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES		NEXT ASS'Y. 1742-L2	NO. REQ'D. 2	MATERIAL 302 STAINLESS STEEL SPEC. SPRING TEMPER 82-W-6713 COMP B	FINISH CLEAR PASSIVATE SPEC. MIL-F-19072 FINISH E-300	W.O. NO. REQ'D. 2	TITLE SPRING-DETENT, CAP	DATE 5/20/63 SCALE 10/1	STAT.
						DRAWN	DATE 23 MAY 63 DWG. SIZE A	DWG. NO. 1742-158	REV.

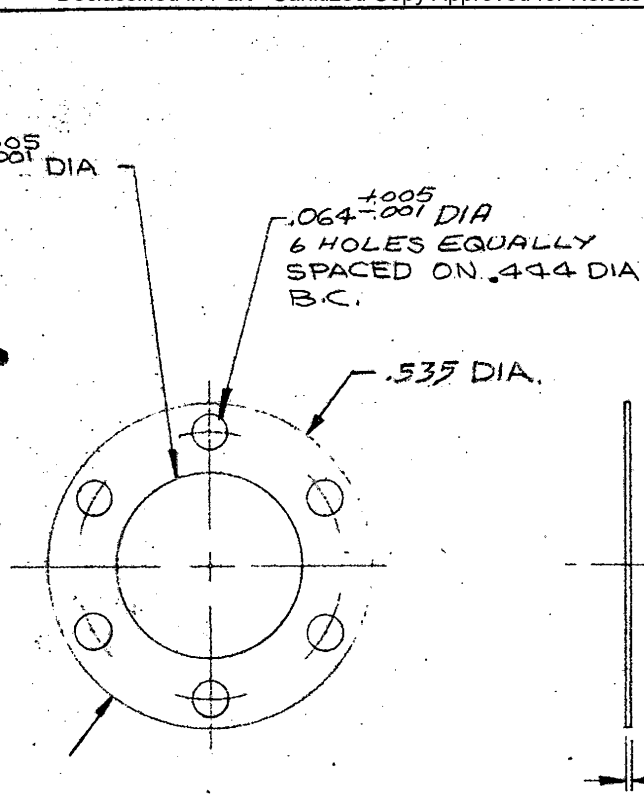


REVISIONS		DWG. NO.	REV.
		A1742-159	C
SYM.	DESCRIPTION	BY	DATE
A	TITLE WAS " WASHER- STOP GEAR..... "		STAT 5
	REVISED PER E.C. 3529		
B	MATL WAS BRASS, LEADED, QQ-B-613 HARD		8/11/63
	PER E.C. 3646		
C	.089 ±.003 WAS .100 ±.005 - EC 4588		4-1-64

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.			W.O.	TITLE WASHER - PAWL, .100 X .180 X .025 THK.		STAT				
DECIMAL DIM.	± .005			MATERIAL SPEC. BRASS, LEADED QQ-B-613 COMP. 24% COND. HARD	FINISH SPEC.	DRAWN	NO. REQ'D.	1	DATE	5-13-63	SCALE	10:1	STAT
FRACTIONAL DIM.	± 1/64						DATE	16 MAY 63	DWG. NO.	A1742-159	REV.	C	
ANGULAR DIM.	± 5°						DATE	5-16-63	DWG. SIZE	A			
ALL DIMENSIONS GIVEN IN INCHES													

CLEARPRINT 1020



REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	ADDED .535 DIM PER EC 3601	LT	8/13/63

NOTE:
MUST BE FLAT & FREE FROM BURRS

PART NO.	"T"
1742-	-1 .001
	-2 .002
	-3 .005

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH
DECIMAL DIM. $\pm .005$	1742-L2	AS REQ'D	STAINLESS STEEL	
FRACTIONAL DIM. $\pm 1/64$			SPEC MIL-S-5059	SPEC. S
ANGULAR DIM. $\pm 5'$			TYPE 302	
ALL DIMENSIONS GIVEN IN INCHES				

W.O.	TITLE	STAT.
NO. REQ'D. SEE NOTE	SHIM- DETENT, CAP	
DATE 5/17/63	SCALE 4/1	STAT
DATE 23 MAY 63	DWG. SIZE A	DWG. NO. 1742-160-
DATE 5-22-63		REV. A

REVISIONS		DWG. NO.	REV.
		1742-161	
SYM.	DESCRIPTION	BY	DATE

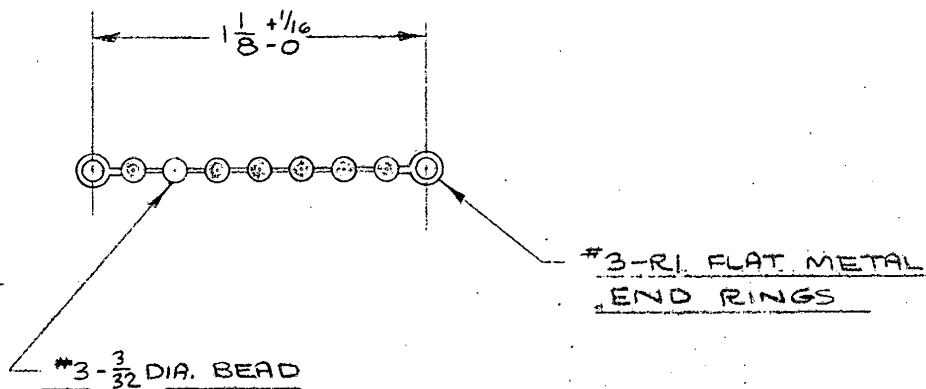
.180
 .025
 .075
 .010 x 45° CHAMFER
 .070 $\begin{smallmatrix} +.000 \\ -.002 \end{smallmatrix}$ DIA.
 *0-80 UNF-2A THD. AS CLOSE TO SHOULDER AS POSSIBLE
 .015 WIDE X .015 DEEP SLOT
 .109 DIA.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY.	NO. REQ'D.	MATERIAL	FINISH	DATE	SCALE	DWG. NO.	DWG. SIZE	REV.
DECIMAL DIM.	±.005	1742-L12	1	STEEL	PASSIVATE	4-23-63	10 X 1	1742-161	A	STAT
FRACTIONAL DIM.	± 1/64			CORROSION RESISTANT		16 MAY 63				
ANGULAR DIM.	± 5°			SPEC. QQ-S-763	SPEC. MIL-S-5002	8-16-63				
ALL DIMENSIONS GIVEN IN INCHES				CLASS 303 COND. A						

SECTION DRAWING CONTROL

REVISIONS		DWG. NO.	REV.
		1742-162	A
SYM.	DESCRIPTION	BY	DATE
A.	REV 1 1/8 ± 1/64 TO 1 1/8 ± 1/16 PER EC 3561	LT	8-5-63



NOTE
PURCHASE FROM THE BEAD CHAIN
MFG. CO. BRIDGEPORT, CONN.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT.
DECIMAL DIM. ± .005		1742-112	1	NO. REQ'D. 1		CHAIN - SWITCH POLARITY		
FRACTIONAL DIM. ± 1/64						DATE 4-25-63	SCALE 2 x 1	STAT.
ANGULAR DIM. ± 5°						DATE 16 MAY 63	DWG. SIZE A	REV.
ALL DIMENSIONS GIVEN IN INCHES						DATE 5-16-63	DWG. NO. 1742-162	A

CLEARPRINT 1020

PRODUCTION DRAWING CONTROL DC

DWG. NO. 1742-163		REV. NO. A		DWG. NO. 1742-163		REV. NO. A	
SYMBOL				REVISIONS			
DESCRIPTION				DATE			
A DELETED .040 DIA X .135, .005 DIA CHAMFER, 1954 Q25 DIM. RODED				3-26-64			
325 DIM - E24578							

BREAK ALL SHARP EDGES ON SQ.

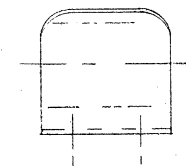
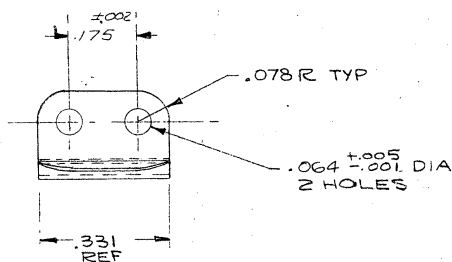
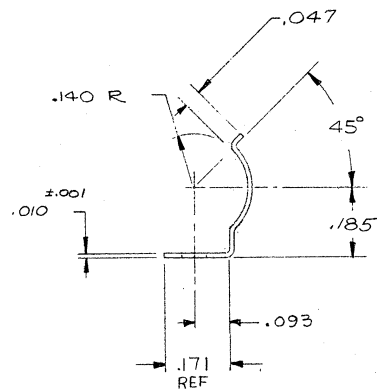
.175 DIA.

.325

1.50

#1-1/2 UNF-2A THD.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000				TITLE SCREW COVER BATTERY		STAT	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASSY	NO. REQ'D	W.O.	DATE	SCALE	REV.
DECIMAL DIM	± .005	1742-L12	1	NO. REQ'D. 1	4-22-63	10X1	
FRACTIONAL DIM	± 1/64				16 MAY 63		
ANGULAR DIM	± 5°				DATE		
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL	FINISH	DWG. NO.	REV.
				STEEL	PASSIVATE	1742-163	A
				CORROSION RESISTANT	SPEC MIL-S-5002		
				SPEC QQ-S-743			
				CLASS 303 COND. A			



BEND RADII .010 ±.002

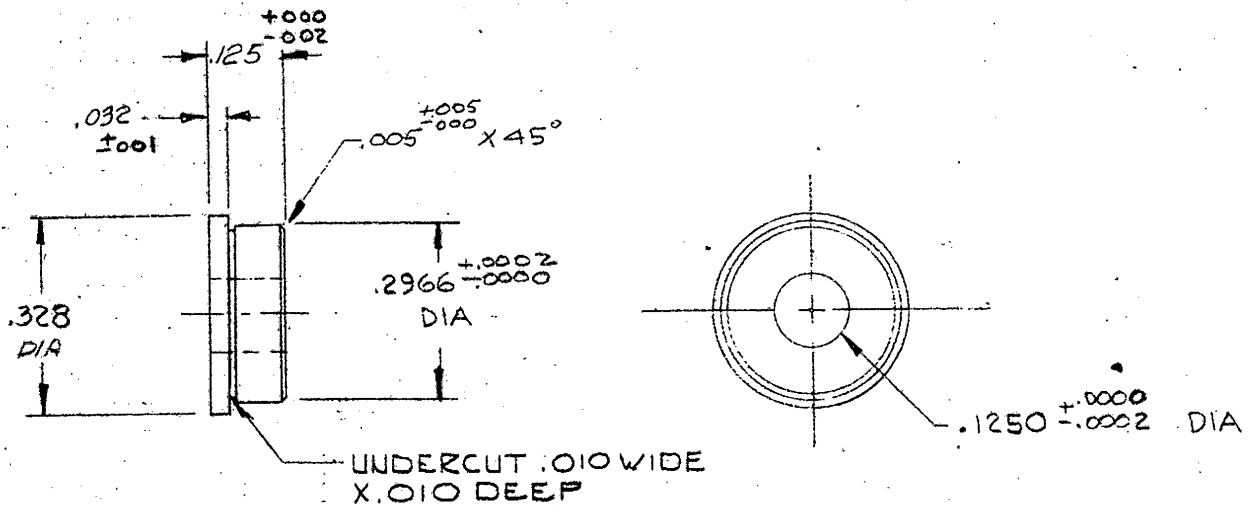
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HEAT TREAT TO R/C 47-52-SPRING TEMPER

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASSY.	NO. REQ'D.	W.O.	TITLE
DECIMAL DIM. ±.005	1742-15	1	NO. REQ'D. 1	CLIP-SPRING, KEY STAT
FRACTIONAL DIM. ± 1/64			DRAWN JT	DATE 5/15/63 SCALE 4/1
ANGULAR DIM. ± 5°				DATE 16 MAY 63 DWG. NO. 1742-164A
ALL DIMENSIONS GIVEN IN INCHES				DATE 5/14/63 DWG. NO. 1742-164A
				STAT. 1742-164A

REVISIONS		DWG. NO.	REV.
		A1742-166	B
SYM.	DESCRIPTION	BY	DATE
A	REV MAT'L SPEC PER EC 3580		STAT 3
B	ADDED UNDERCUT AND NOTE 1 EC-4577		3-26-64

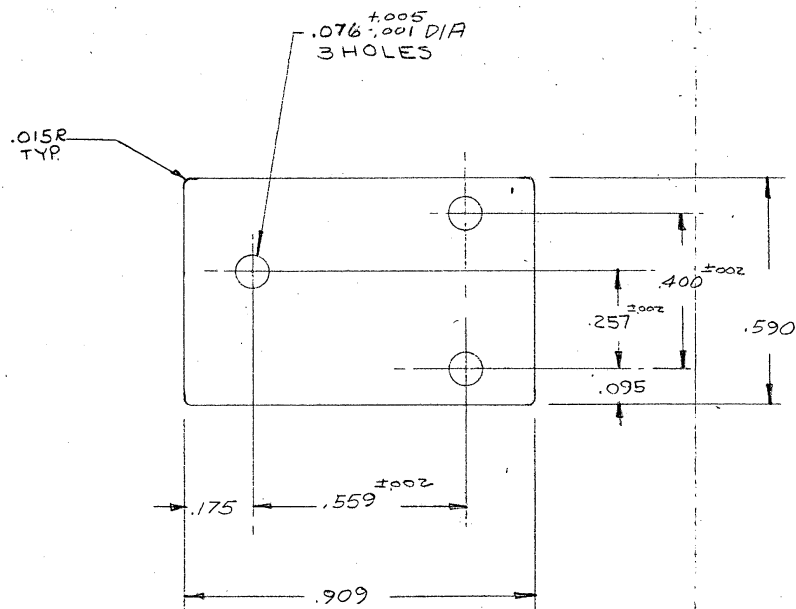


NOTE:

1. REMOVE ALL BURRS - BREAK ALL SHARP
EDGES & CORNERS .005 MAX.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT
DECIMAL DIM. ±.005				NO. REQ'D. 1		BUSHING - STOP GEAR		
FRACTIONAL DIM. ± 1/64				DRAWN JT		DATE 5/20/63	SCALE 4/1	
ANGULAR DIM. ± 5°				DATE 22 MAY 63		DWG. SIZE A	DWG. NO. 1742-166	STAT REV. B
ALL DIMENSIONS GIVEN IN INCHES				DATE 5-22-63				
MATERIAL LEADED BRASS				FINISH SPEC. S				
SPEC. 00-B-626				COMP 22 COND 1/2 HD				



REVISIONS		DWG. NO.	REV.
A		B1742-167	A
SYM.	DESCRIPTION	BY	DATE
A	MAT'L WAS COND. FULL. PER EC. 3649		STAT3

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM. $\pm .005$

FRACTIONAL DIM. $\pm 1/64$

ANGULAR DIM. $\pm 5^\circ$

ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY. NO. REQ'D.

1742-15 1

MATERIAL 5052
ALUMINUM
SPEC. QQ-A-318
COMP. 5052 COND. H34

FINISH BLACK ANODIZE
SPEC. MIL-A-8625
TYPE II

W.O. NO. REQ'D. 1

TITLE COVER - LEFT SIDE

DATE 5/21/63

SCALE 4/1

DWG. NO. B 1742-167

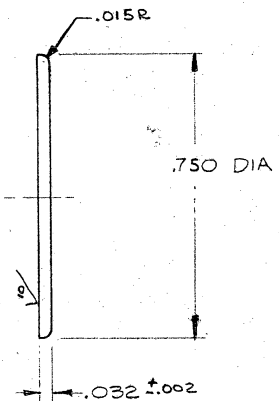
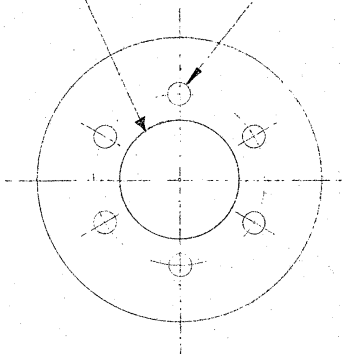
REV. A

STAT

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DRAWING CONTROL DC

.323 $\pm .003$ DIA
 .064 $\pm .001$ DIA
 6 HOLES EQUALLY SPACED
 ON .444 DIA B.C.



REVISIONS				DWG. NO.	REV.
SYM.	DESCRIPTION	BY	DATE	B1742-168	A
A	MAT'L WIS. COLD 3/4 H. PER E.C. 364		8/17/63		

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

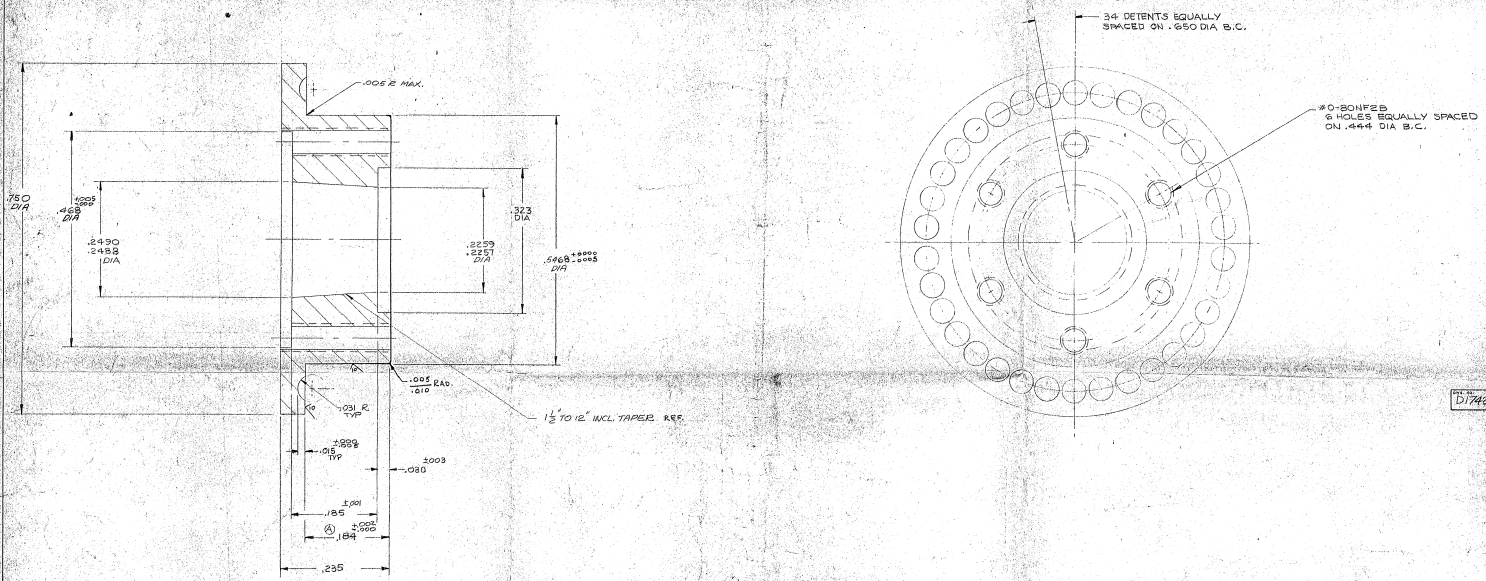
TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT	ASSY.	NO. REQ'D.
DECIMAL DIM. $\pm .005$			
FRACTIONAL DIM. $\pm 1/64$			
ANGULAR DIM. $\pm 5'$			
ALL DIMENSIONS GIVEN IN INCHES			

MATERIAL STAINLESS ST'L	FINISH CLEAR
SPEC MIL-S-5053	SPEC FHL-F-4072
TEMP 302 CND 1/4H	FINISH E300

W.O. NO. REQ'D.	TITLE PLATE-DETENT, CAP	STAT
DRAWN IT	DATE 5/16/63	SCALE 4:1
DATE 23 MAY 63	DWG. NO. B 1742-168	STAT A
DATE 5-22-63		

PRINT ISSUED APR 30 1964

		DIB. 88		REV.	
REVISIONS		D1742-168		A	
DATE	DESCRIPTION	BY	DATE		
A	REV. 130 TO 184 PER EC 3915	LT	12/21/87		



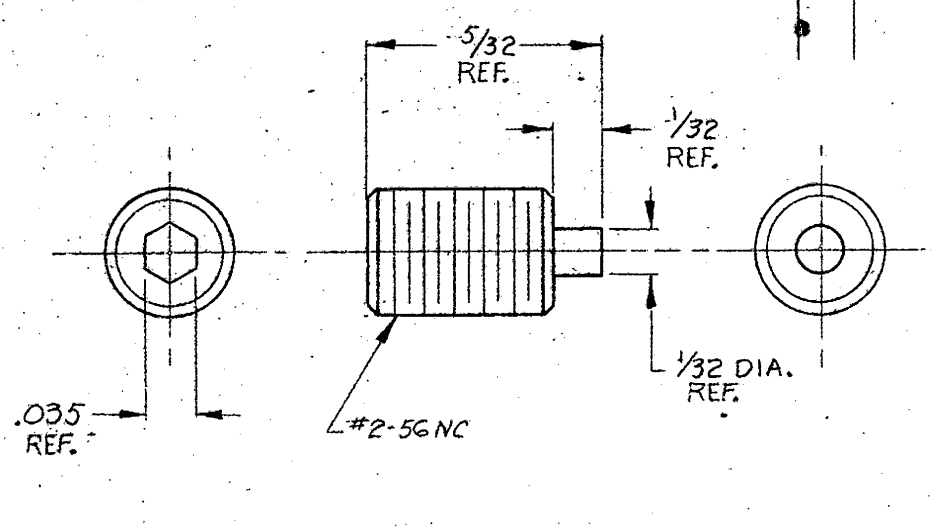
LINE NO.
D1742-1C9

REV.
A

PRINT ISSUED MAY 2 1964

UNITS OF ACCEPTABLE MEASUREMENT ARE DESIGNED BY NF-2000				<table border="1"> <tr> <td>DATE</td> <td>TIME</td> </tr> <tr> <td></td> <td></td> </tr> </table>		DATE	TIME																						
DATE	TIME																												
<table border="1"> <tr> <td>TOLERANCES</td> <td>REMARKS</td> <td>NO. INDEX</td> </tr> <tr> <td colspan="3">UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>DECIMAL DIM.</td> <td>± .003</td> <td></td> </tr> <tr> <td>FRACTIONAL DIM.</td> <td>± .005</td> <td></td> </tr> <tr> <td>ANGULAR DIM.</td> <td>± .5°</td> <td></td> </tr> <tr> <td colspan="3">ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED</td> </tr> </table>				TOLERANCES	REMARKS	NO. INDEX	UNLESS OTHERWISE SPECIFIED			DECIMAL DIM.	± .003		FRACTIONAL DIM.	± .005		ANGULAR DIM.	± .5°		ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED			<table border="1"> <tr> <td>DATE</td> <td>TIME</td> </tr> <tr> <td></td> <td></td> </tr> </table>		DATE	TIME				
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<table border="1"> <tr> <td>MATERIAL</td> <td>FINISH</td> <td>PROCESS</td> <td>DATE</td> <td>TIME</td> </tr> <tr> <td>916 STAINLESS STEEL</td> <td>316</td> <td>ANODIZED</td> <td>6/16/63</td> <td>10:1</td> </tr> <tr> <td>916-5-76-36</td> <td>916-5-76-36</td> <td>916-5-76-36</td> <td>916-5-76-36</td> <td>916-5-76-36</td> </tr> <tr> <td>CLASS 6 TYPE A</td> <td>CLASS 6 TYPE A</td> <td>CLASS 6 TYPE A</td> <td>CLASS 6 TYPE A</td> <td>CLASS 6 TYPE A</td> </tr> </table>				MATERIAL	FINISH	PROCESS	DATE	TIME	916 STAINLESS STEEL	316	ANODIZED	6/16/63	10:1	916-5-76-36	916-5-76-36	916-5-76-36	916-5-76-36	916-5-76-36	CLASS 6 TYPE A	CLASS 6 TYPE A	CLASS 6 TYPE A	CLASS 6 TYPE A	CLASS 6 TYPE A	<table border="1"> <tr> <td>DATE</td> <td>TIME</td> </tr> <tr> <td></td> <td></td> </tr> </table>		DATE	TIME		
MATERIAL	FINISH	PROCESS	DATE	TIME																									
916 STAINLESS STEEL	316	ANODIZED	6/16/63	10:1																									
916-5-76-36	916-5-76-36	916-5-76-36	916-5-76-36	916-5-76-36																									
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PRODUCT	ING CONTROL																												
DATE	TIME																												

REVISIONS				DWG. NO.	REV.
SYM.	DESCRIPTION	BY	DATE		
				A1742-170	

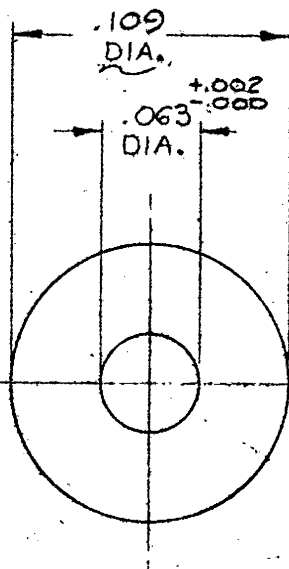


NOTES -
 I. PIC DESIGN CORP.
 477 ATLANTIC AVE,
 EAST ROCKAWAY, L.I., N.Y.
 P/N CS-8 OR EQUIV.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	W.O.	TITLE	STAT
DECIMAL DIM. ± .005 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 5'	1742-15	1	7	SCREW- SET, HEX SOCKET (RECORD HEAD)	STAT
ALL DIMENSIONS GIVEN IN INCHES				DATE 5-29-63 SCALE 10:1 DWG. NO. A1742-170 DATE 5-29-63	STAT

MATERIAL STAINLESS STEEL SPEC. 8 NYLON	FINISH CLEAR PASSIVATE SPEC. MIL-F-14072 FINISH E300	
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REVISIONS		DWG. NO.	REV.
		A1742-171	B
SYM.	DESCRIPTION	BY	DATE
A	.109 WAS .188 PER EC 4182		STAT 2-63
B	.063 WAS .067 ± .002, ADDED. NOTE 1 - EC 4576		3-25-64

NOTE:

1 REMOVE ALL BURRS - BREAK ALL
SHARP EDGES & CORNERS .005 MAX.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D	IC	W.O. NO. REQ'D	TITLE		STAT	
DECIMAL DIM.	± .005	1742-15	1			WASHER - BRAKE ADJUSTMENT		STAT	
FRACTIONAL DIM.	± 1/64					DATE	SCALE		
ANGULAR DIM.	± 5°					6-27-63	10:1		
ALL DIMENSIONS GIVEN IN INCHES						DATE	DWG. SIZE	DWG. NO.	REV.
						28 MAY 63	A	A1742-171	B
						DATE			
						6-27-63			

MATERIAL
STAINLESS STEEL
SPEC. TYPE 302
QQ-S-763
COND. A

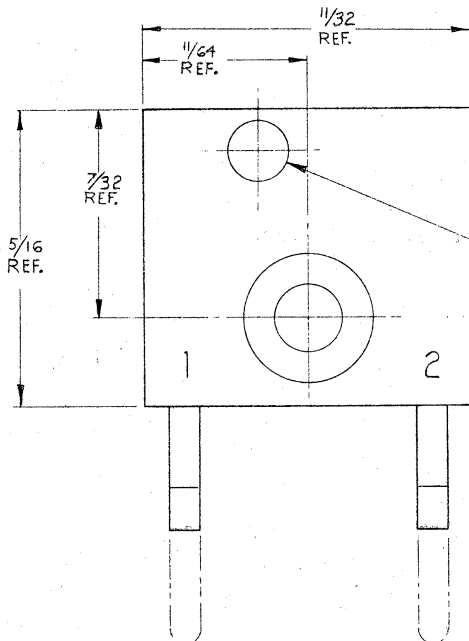
FINISH
CLEAR PASSIVATE
SPEC. MIL-F-14072
FINISH E 300

NOTES:

1. PURCHASE FROM:
CIRCON COMPONENT CORP. OF SANTA BARBARA
GOLETA, CALIF. P/N SM4FI16.
2. REOPERATE AS SHOWN.

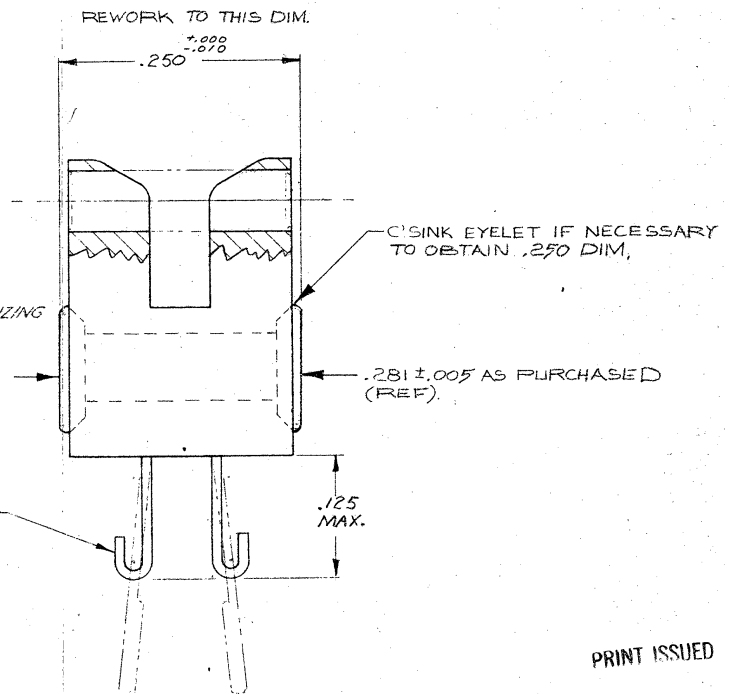
DWG. NO. **B1742-172**
REV. **A**

REVISIONS			
SYM.	DESCRIPTION	BY	DATE
A	ADDED REWORK INFO / EC 3612	LT	8-15-63



REMOVE POLARIZING
PIN

REWORK TO
THIS GENERAL
CONFIGURATION.



PRINT ISSUED APR 30 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN AP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	
DECIMAL DIM.	± .005
FRACTIONAL DIM.	± 1/64
ANGULAR DIM.	± 5°
ALL DIMENSIONS GIVEN IN INCHES	

NEXT ASSY.	NO. REQ'D.
B1742-15 3R	1

MATERIAL	FINISH
SPEC.	SPEC.

W.O.	NO. REQ'D.

TITLE RECEPTACLE - POLARITY REVERSE SWITCH			
DATE	SCALE	STAT	
6-14-63	10:1		
DATE	DWG. NO.	STAT	
6-14-63	B		
DATE	DWG. NO.	REV.	
6-14-63	B		

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

DD FORM 672-1 (Rev. 1-64)	OH: Cui WC ASD	TITLE	RATING (NUMBERED SECTION TYPE)	SUPERSEDES	MILITARY STANDARD MS16625	SHEET 2 OF 2	RECOMMENDED GROOVE																*K MAX. WIDTH	*C MAX.	*R OF RETAINED PART	*CB MAX.
							DIAMETER		WIDTH		DIAMETER		WIDTH		DIAMETER		WIDTH		DIAMETER		WIDTH					
							BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.				
							1.575	40.0	1.734	.232	.157	.078	.062	1.671	.068	.378	1.15	.064	.050							
							1.625	41.3	1.804	.227	.164	.082	.062	1.725	.068	.339	1.15	.064	.050							
							1.653	42.0	1.835	.227	.167	.083	.062	1.755	.068	.348	1.17	.064	.050							
							1.688	42.9	1.874	.227	.170	.085	.062	1.792	.068	.357	1.21	.064	.050							
							1.750	44.4	1.942	.234	.171	.083	.062	1.858	.068	.372	1.26	.064	.050							
							1.812	46.0	2.012	.234	.170	.084	.062	1.922	.068	.382	1.32	.064	.050							
							1.850	47.0	2.054	.234	.170	.085	.062	1.962	.068	.392	1.36	.064	.050							
							1.875	47.6	2.072	.234	.170	.085	.062	1.989	.068	.420	1.39	.064	.050							
							1.938	49.2	2.141	.234	.170	.085	.062	2.056	.068	.438	1.45	.064	.050							
							2.000	50.8	2.210	.240	.170	.085	.062	2.122	.068	.453	1.50	.064	.050							
							2.047	52.0	2.280	.250	.186	.091	.078	2.171	.086	.428	1.52	.076	.061							
							2.062	52.4	2.280	.250	.186	.091	.078	2.186	.086	.468	1.54	.078	.062							
							2.125	54.0	2.350	.260	.195	.096	.078	2.251	.086	.460	1.58	.078	.062							
							2.165	55.0	2.415	.264	.199	.098	.078	2.295	.086	.439	1.61	.078	.062							
							2.188	55.6	2.415	.264	.199	.098	.078	2.318	.086	.489	1.64	.078	.062							
							2.250	57.1	2.490	.270	.203	.099	.078	2.382	.086	.478	1.69	.078	.062							
							2.312	58.7	2.560	.270	.206	.100	.078	2.450	.086	.486	1.75	.078	.062							
							2.375	60.3	2.630	.270	.207	.102	.078	2.517	.086	.504	1.81	.078	.062							
							2.440	62.0	2.702	.280	.209	.103	.078	2.584	.086	.518	1.86	.078	.062							
							2.500	63.5	2.775	.280	.210	.103	.078	2.648	.086	.532	1.91	.078	.062							
							2.531	64.3	2.775	.280	.210	.103	.078	2.681	.086	.597	1.94	.078	.062							
							2.562	65.3	2.844	.290	.222	.109	.078	2.714	.086	.540	1.95	.088	.070							
							2.625	66.7	2.910	.290	.226	.111	.093	2.781	.086	.558	2.02	.088	.070							
							2.677	68.0	2.980	.290	.230	.113	.093	2.837	.086	.559	2.05	.090	.072							
							2.688	68.3	2.980	.290	.230	.113	.093	2.848	.086	.568	2.06	.090	.072							
							2.750	69.8	3.050	.300	.234	.115	.093	2.914	.086	.590	2.12	.092	.074							
							2.812	71.4	3.121	.300	.230	.115	.093	2.980	.086	.615	2.18	.088	.070							
							2.835	72.0	3.121	.300	.230	.115	.093	3.006	.086	.676	2.21	.088	.070							
							2.875	73.0	3.191	.310	.240	.120	.093	3.051	.086	.626	2.22	.092	.074							
							2.953	75.0	3.325	.310	.250	.122	.093	3.135	.086	.619	2.30	.092	.074							
							3.000	76.2	3.325	.310	.250	.122	.093	3.182	.086	.738	2.35	.092	.074							
							3.062	77.8	3.418	.310	.254	.126	.109	3.248	.120	.651	2.41	.097	.078							
							3.125	79.4	3.488	.310	.259	.129	.109	3.315	.120	.655	2.47	.099	.079							
							3.149	80.0	3.523	.310	.262	.129	.109	3.341	.120	.650	2.48	.100	.080							
							3.156	80.2	3.523	.310	.262	.129	.109	3.348	.120	.669	2.50	.100	.080							
							3.250	82.5	3.623	.342	.269	.135	.109	3.446	.120	.698	2.54	.104	.083							
							3.346	85.0	3.734	.342	.276	.140	.109	3.546	.120	.705	2.63	.108	.086							
							3.469	88.1	3.857	.342	.286	.144	.109	3.675	.120	.763	2.76	.108	.086							
							3.500	88.9	3.890	.342	.289	.142	.109	3.710	.120	.774	2.79	.110	.088							
							3.543	90.0	3.936	.342	.292	.142	.109	3.755	.120	.788	2.83	.110	.088							
							3.562	90.5	3.936	.342	.292	.142	.109	3.776	.120	.842	2.85	.110	.088							
							3.625	92.1	4.024	.342	.299	.150	.109	3.841	.120	.833	2.91	.116	.093							
							3.740	95.0	4.157	.342	.309	.155	.109	3.964	.120	.844	3.02	.120	.096							
							3.750	95.2	4.157	.342	.309	.155	.109	3.974	.120	.891	3.03	.120	.096							
							3.875	98.4	4.291	.370	.319	.160	.109	4.107	.120	.891	3.11	.123	.098							
							3.938	100.0	4.358	.370	.324	.161	.109	4.174	.120	.905	3.17	.124	.099							
							4.000	101.6	4.424	.370	.330	.166	.109	4.240	.120	.918	3.23	.128	.102							
							4.125	104.8	4.558	.370	.330	.171	.109	4.365	.120	.948	3.36	.130	.104							

PRECEDENT SPECIFICATION
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PREC

APPROVED 11 Dec 1958 REVISED 8 FOR CHANGES SEE SHEETS 1 THROUGH 7

(B) NOTE: The Government has a royalty free license under Walrus Kohlmor Inc. copyright to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of this item for the Government or for use in equipment to be delivered to the Government. (U.S. Patent No. 2,861,834.)

FED. SUP. CLASS 530

This military standard is approved by the Department of Defense and is mandatory as all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

P.A. Key - Use	Housing Diameter	D Free Diameter		B	E	F	T	G Recommended Groove				H Gap Width	J	K of Retained Part		
Inch	MM	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	MIN.	MAX.	MIN.
4.250	108.0	4.691		.370		.135		.180		.109		4.490		.96	3.48	.118
4.311	110.0	4.756		.405		.143		.190		.109		4.571		1.00	3.50	.118
4.500	114.3	4.940		.405		.151		.191		.109		4.740		.98	3.66	.117
4.625	117.5	5.076	±.005	.405	±.008	.153		.193		.109	±.003	4.865	±.006	1.00	3.79	.121
4.724	120.0	5.213		.405		.153		.193		.109		4.969	.006	.96	3.88	.123
4.750	120.6	5.213		.405		.153		.193		.109		4.995	TIR	1.03	3.90	.123
5.000	127.0	5.485		.435		.166		.196		.109		5.260		.97	4.08	.126
5.250	133.3	5.770		.455		.168	±.009	.196		.125	±.009	5.520		1.10	4.31	.134
5.375	136.5	5.910		.455		.168		.196		.125		5.650	±.007	1.12	4.41	.134
5.500	139.7	6.066		.455		.168		.196		.125	±.004	5.770	.006	1.09	4.53	.134
5.750	146.0	6.336		.455		.168		.196		.125		6.020	TIR	1.11	4.78	.134
6.000	152.4	6.620		.455		.196		.225		.125		6.270		.139	5.03	.168
6.250	158.7	6.895		.485		.211		.231		.136		6.530		.174	5.28	.177
6.500	165.1	7.170		.485		.219		.239		.136		6.790		1.29	5.49	.181
6.625	168.3	7.308	±.006	.485		.221		.239		.136		6.925		1.28	5.60	.183
6.750	171.4	7.445		.530		.228		.238		.136		7.055		1.21	5.65	.188
7.000	177.8	7.720		.530	±.010	.232		.238		.136		7.315		1.26	5.88	.196
7.250	184.1	7.995		.560		.238		.238		.187		7.575		1.32	6.08	.202
7.500	190.5	8.270		.560		.247		.237		.187		7.840		1.39	6.33	.208
7.750	196.3	8.545		.560		.252		.237		.187		8.100	±.008	1.44	6.58	.214
8.000	203.2	8.820		.600		.262		.270		.187	±.005	8.360	.006	1.50	6.75	.220
8.250	209.5	9.095		.600		.270		.270		.187		8.620	TIR	1.53	7.00	.229
8.500	215.9	9.265		.660		.277	±.010	.277	±.010	.187		8.880		1.71	7.13	.235
8.750	222.2	9.558	±.010	.660		.286		.286		.187		9.145		1.77	7.38	.241
9.000	228.6	9.830		.660		.294		.294		.187		9.405		1.83	7.63	.249
9.250	235.0	10.108		.660		.299		.299		.187		9.668		1.87	7.88	.253
9.500	241.3	10.375		.735		.304		.304		.187		9.930		1.91	7.98	.258
9.750	247.7	10.648		.735		.309		.309		.187		10.190		2.00	8.23	.263
10.000	254.0	10.920		.735		.315		.315		.187		10.450		2.01	8.48	.270
* - Dimensions and tolerances apply to unplated rings only. For plated and corrosion resisting steel rings also 1.023 and smaller, the maximum F dimension shall not exceed the minimum H dimension minus .0002 inch. For plated and corrosion resisting steel rings size 1.062 and larger the maximum F dimension may exceed the listed F dimension (Tolerance) by a maximum of .002 inch. ** - Minimum groove width when the ring is properly seated in the groove. (Design reference dimension.) *** - Actual clearance diameter when the ring is sprung into the housing, prior to installation into the groove. (Design reference dimension.) # and ## - A radial or chamfer allowable on parts to be retained by the ring. Burst loads of rings, retaining parts with corner radii or chamfers as listed above are tabulated as shown. TIR = (Total Indicator Reading) is the maximum allowable deviation of concentricity between the groove and the housing. Dimensions in inches, unless otherwise specified. Supplementary manufacturing dimensions are included in Procurement Specification MIL-B-21248.																

*F - Dimensions and tolerances apply to unplated rings only. For plated and corrosion resisting steel rings size 1.023 and smaller, the maximum F dimension shall not exceed the minimum W dimension plus .0003 inch. For plated and corrosion resisting steel rings size 1.052 and larger the maximum F dimension may exceed the listed F dimension (Tolerance) by a maximum of .002 inch.
 *H - Minimum gap width when the ring is properly seated in the groove. (Design reference dimension.)
 *J - Actual clearance diameter when the ring is sprung into the housing, prior to installation into the groove. (Design reference dimension.)
 *K and *L - Radii or chamfers allowable on parts to be retained by the ring. Distort loads of rings, retaining parts with corner radii or chamfers as listed above are tabulated on sheet 7.
 *TIR - (Total Indicator Reading) is the maximum allowable deviation of concentricity between the groove and the housing.
 Dimensions in inches, unless otherwise specified.
 Supplementary manufacturing dimensions are included in Procurement Specification MIL-B-21248.

(5) NOTE: The Government has a royalty free license under Walter Kohlbach Inc. copyright pursuant to portions of the information contained herein and under the following filed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government. (U.S. Patent No. 2,901,484.)

NOTE: The Government has a royalty free license under Walde's Kohinoor Inc. copyrights pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government. (U.S. Patent No. 2,881,824.)

MILITARY STANDARD					
MS16625					
SHEET 1 OF 1					
P.D. SUP. CLASS 5940					
NOMINAL RING SIZE	STEEL DASH NO.	STEEL CARBIDE PLATED DASH NO.	STEEL RING PLATED DASH NO.	STEEL PROTECTIVE COATED DASH NO.	STEEL OXIDATION RESISTING DASH NO.
.250	MS16625-25	MS16625-1025		MS16625-3025	MS16625-4025
.312	-31	-1031		-3031	-4031
.375	-37	-1037		-3037	-4037
.438	-43	-1043		-3043	-4043
.453	-45	-1045		-3045	-4045
.500	-50	-1050		-3050	-4050
.512	-51	-1051		-3051	-4051
.562	-56	-1056		-3056	-4056
.625	-62	-1062		-3062	-4062
.688	-68	-1068		-3068	-4068
.750	-75	-1075		-3075	-4075
.777	-77	-1077		-3077	-4077
.812	-81	-1081		-3081	-4081
.868	-86	-1086		-3086	-4086
.875	-87	-1087		-3087	-4087
.901	-90	-1090		-3090	-4090
.938	-93	-1093		-3093	-4093
1.000	-100	-1100		-3100	-4100
1.023	-102	-1102		-3102	-4102
1.068	-106	-1106		-3106	-4106
1.125	-112	-1112	SEE INTER-CHANGABILITY TABLE	-3112	-4112
1.181	-118	-1118		-3118	-4118
1.188	-118	-1118		-3118	-4118
1.250	-125	-1125		-3125	-4125
1.259	-125	-1125		-3125	-4125
1.312	-131	-1131		-3131	-4131
1.375	-137	-1137		-3137	-4137
1.378	-137	-1137		-3137	-4137
1.438	-143	-1143		-3143	-4143
1.456	-145	-1145		-3145	-4145
1.500	-150	-1150		-3150	-4150
1.562	-156	-1156		-3156	-4156
1.575	-156	-1156		-3156	-4156
1.625	-162	-1162		-3162	-4162
1.653	-165	-1165		-3165	-4165
1.688	-168	-1168		-3168	-4168
1.750	-175	-1175		-3175	-4175
1.812	-181	-1181		-3181	-4181
1.850	-185	-1185		-3185	-4185
1.875	-187	-1187		-3187	-4187
1.938	-193	-1193		-3193	-4193
2.000	-200	-1200		-3200	-4200
2.047	-206	-1206		-3206	-4206
2.062	-206	-1206		-3206	-4206
2.125	-212	-1212		-3212	-4212
2.165	-218	-1218		-3218	-4218
2.188	-218	-1218		-3218	-4218
2.250	-225	-1225		-3225	-4225
2.312	-231	-1231		-3231	-4231
2.375	-237	-1237		-3237	-4237
2.440	-244	-1244		-3244	-4244
2.500	-250	-1250		-3250	-4250
2.531	-250	-1250		-3250	-4250
2.562	-256	-1256		-3256	-4256
2.625	-262	-1262		-3262	-4262
2.677	-268	-1268		-3268	-4268
2.688	-268	-1268		-3268	-4268
2.750	-275	-1275		-3275	-4275
2.811	-281	-1281		-3281	-4281
2.834	-281	-1281		-3281	-4281
2.875	-287	-1287		-3287	-4287
2.953	-300	-1300		-3300	-4300
3.000	-300	-1300		-3300	-4300
3.062	-306	-1306		-3306	-4306
3.125	-312	-1312		-3312	-4312
3.149	-315	-1315		-3315	-4315
3.156	-315	-1315		-3315	-4315
3.250	-325	-1325		-3325	-4325
3.438	MS16625-334	MS16625-1334		MS16625-3334	MS16625-4334
P.A. RAY - Vep	TITLE				MILITARY STANDARD
Other Cost	RING, RETAINING, INTERNAL, BASIC				MS16625
VC	(CAPTIVE SECTION TYPE)				
ABD					
PROCUREMENT SPECIFICATION	SUPERSEDES				SHEET 1 OF 1
MTL-R-21248 TT-1 CL-1					

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 11 Dec 1958 REVISED 6 FOR CHANGES SEE SHEETS 1 THROUGH 7

This military standard is approved by the Department of Defense and is necessary for all activities. Selection for all new engineering and design specifications and for revisions are shall be made from this document.

- (B) NOTE: The Government has a royalty free license under Walde Kohlbör Inc. copyrights pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government. (U.S. Patent No. 2,861,824.)

FED. SUP CLASS 5340					
NOMINAL RING SIZE	STEEL	STEEL CALCIUM PLATED	STEEL ZINC PLATED	STEEL PHOSPHATE COATED	STEEL CORROSION RESISTING
	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
3.469	MS16625-346	MS16625-1346		MS16625-3346	MS16625-4346
3.500	-350	-1350		-3350	-4350
3.543	-354	-1354		-3354	-4354
3.562	-356	-1356		-3356	-4356
3.625	-362	-1362		-3362	-4362
3.740	-375	-1375		-3375	-4375
3.750	-375	-1375		-3375	-4375
3.875	-387	-1387		-3387	-4387
3.938	-393	-1393		-3393	-4393
4.000	-400	-1400	SEE INTER- CHANGEABILITY TABLE	-3400	-4400
4.125	-412	-1412		-3412	-4412
4.250	-425	-1425		-3425	-4425
4.390	-433	-1433		-3433	-4433
4.500	-450	-1450		-3450	-4450
4.625	-462	-1462		-3462	-4462
4.724	-475	-1475		-3475	-4475
4.750	-475	-1475		-3475	-4475
5.000	-500	-1500		-3500	-4500
5.250	-525	-1525		-3525	-4525
5.375	-537	-1537		-3537	-4537
5.500	-550	-1550		-3550	-4550
5.750	-575	-1575		-3575	-4575
6.000	-600	-1600		-3600	-4600
6.250	-625	-1625		-3625	-4625
6.500	-650	-1650		-3650	-4650
6.625	-662	-1662		-3662	-4662
6.750	-675	-1675		-3675	-4675
7.000	-700	-1700		-3700	-4700
7.250	-725	-1725		-3725	-4725
7.500	-750	-1750		-3750	-4750
8.000	-800	-1800		-3800	-4800
8.250	-825	-1825		-3825	-4825
8.500	-850	-1850		-3850	-4850
8.750	-875	-1875		-3875	-4875
9.000	-900	-1900		-3900	-4900
9.250	-925	-1925		-3925	-4925
9.500	-950	-1950		-3950	-4950
9.750	-975	-1975		-3975	-4975
10.000	MS16625-1000	MS16625-2000		MS16625-4000	MS16625-5000

MATERIAL: STEEL, CARBON, FEDERAL STANDARD 66, STEEL NOS. 1066 THRU 1090. STEEL, CORROSION RESISTING, (SEE PROCUREMENT SPECIFICATION).

HARDNESS:

HOUSING DIA.	STEEL	HOUSING DIA.	CORROSION RESISTING STEEL
.250 AND .312	ROCKWELL 15N-86-88	.250 AND .312	ROCKWELL 15N-82.5-86
.375 TO .512 INCL.	30N-69.5-73	.375 TO 1.023	30N-63-69.5
.562 TO .777 INCL.	30N-67.5-72	1.062 AND OVER	C-44-51
.812 TO 1.023 INCL.	30N-66-71		
1.062 TO 3.000 INCL.	C-47-52		
3.062 AND OVER	C-45-52		

PROTECTIVE COATINGS AND TREATMENTS:

CALCIUM PLATING, QQ-P-416, TYPE II, CLASS 2.

PHOSPHATE COATING, MIL-C-16232, TYPE II.

CORROSION RESISTING STEEL RINGS SHALL BE PASSIVATED (SEE PROCUREMENT SPECIFICATION).

PART NUMBER - (MS NUMBER) - (RING DASH NUMBER).

EXAMPLE - MS16625-100 IS THE PART NUMBER FOR A STEEL, INTERNAL RETAINING RING FOR USE IN A 1.000 DIAMETER HOUSING.

THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.

REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BIDS.

P.A. Navy - Wep	TITLE	MILITARY STANDARD
Other Cast	RING, RETAINING, INTERNAL, BASIC (TAPERED SECTION TYPE)	MS16625
WG		SHEET 5 OF
ABD		
PROCUREMENT SPECIFICATION	SUPERSEDES:	
MIL-R-21288 TY. I CL. 1		

DD FORM 672-1 (Coordinated)

APPROVED: 11 Dec 1958 REVISED (B) FOR CHANGES SEE SHEETS 1 THROUGH 7

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

- (4) Note: This document has a royalty free license under Walter Kohlmor Inc. copyrights pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government. (U.S. Patent No. 2,861,824.)

RECOMMENDED DESIGN LIMITATIONS AND USAGE:

FED. SUP CLASS
5340

- (4) INTENDED USE - TO PROVIDE SHOULDERS FOR POSITIONING AND RETAINING MACHINE COMPONENTS IN HOUSINGS (BORES). TAPERED DESIGN PRINCIPLE PERMITS RINGS TO MAINTAIN CONSTANT CIRCULARITY AND PRESSURE AGAINST BOTTOM OF GROOVE. THE USE OF THE FOLLOWING FORMULAS IS BASED ON THE FACT THAT THE RING WILL NOT FAIL IN COMPRESSION.

- (5) ALLOWABLE THRUST LOAD CAPACITY OF THE RINGS. ABUTTING COMPONENTS TO HAVE SHARP CORNERS.

$$P = \frac{4THTX}{F}$$

WHERE: P = ALLOWABLE THRUST LOAD (POUNDS).
H = HOUSING DIAMETER (INCHES).
T = RING THICKNESS (INCHES).
X = ULTIMATE SHEAR STRENGTH OF THE RING MATERIAL (P.S.I.).
F = FACTOR OF SAFETY, F = 4, IS RECOMMENDED, SINCE THE RING UNDER LOAD IS SUBJECTED NOT ONLY TO PURE SHEAR STRESSES BUT ALSO TO BENDING STRESSES.

- (c) ALLOWABLE LOAD CAPACITY OF GROOVE WALL -

$$P = \frac{THY}{F}$$

WHERE: P = ALLOWABLE COMPRESSION LOAD (POUNDS).
H = HOUSING DIAMETER (INCHES).
d = GROOVE DEPTH (INCHES).
Y = YIELD STRENGTH IN COMPRESSION OF THE GROOVE MATERIAL (P.S.I.).
F = FACTOR OF SAFETY - TO INSURE A SAFE WORKING LOAD A SAFETY FACTOR, F = 2, IS RECOMMENDED.

- (d) MINIMUM DISTANCE BETWEEN OUTER GROOVE WALL AND END OF HOUSING X

$$Z = 3d$$

WHERE: Z = MINIMUM DISTANCE BETWEEN OUTER GROOVE WALL AND END OF HOUSING (INCHES).
d = GROOVE DEPTH (INCHES).

- (e) ALLOWABLE HOUSING DIAMETER -

$$H = \sqrt{\frac{8P^2 - WFP}{YH}}$$

WHERE: H = ALLOWABLE HOUSING DIAMETER.
d = GROOVE DIAMETER.
F = FACTOR OF SAFETY (SEE FORMULA (c) ABOVE).
P = DESIGN LOAD.
Y = YIELD STRENGTH IN COMPRESSION OF GROOVE MATERIAL (P.S.I.).

- (f) DIFFERENTIAL ROTATION:

THE CONDITIONS UNDER WHICH A RETAINING RING MAY BE USED WHEN ADJACENT PARTS ROTATE RELATIVE TO IT, FALL INTO TWO CATEGORIES:
(1) WHERE NO THRUST IS EXERTED BY ADJACENT PART: IN THIS CASE, DIFFERENTIAL ROTATION OF RING AND ADJACENT PART CREATES NO ELEMENT OF RISK IN THE APPLICATION OF THE RINGS BECAUSE NO FRICTIONAL TORQUE IS EXERTED BY THE MACHINE PART ON THE RING.
(2) CONSIDERATION MUST BE GIVEN TO THE MAGNITUDE OF THE THRUST INVOLVED. THE FRICTION MOMENT MAY NOT EXCEED THE BENDING MOMENT, WHICH THE RING CAN TOLERATE WITHOUT RELASING ITS PRESSURE AGAINST THE BOTTOM OF THE GROOVE, FORMULATED AS FOLLOWS:

$$\frac{PFR}{18} \leq \frac{WFP}{F}$$

OR
 $P \leq \frac{18WFP}{FFR}$

WHERE: P = ALLOWABLE THRUST LOAD EXERTED BY ADJACENT PART (POUNDS).
F = COEFFICIENT OF FRICTION.
W = WORKING STRESS OF RING UNDER MAXIMUM CONTRACTION (P.S.I.).
T = RING THICKNESS (INCHES).
E = GREATEST WIDTH SECTION OF RING (INCHES).
H = NEUTRAL RING DIAMETER (INCHES) = FREE DIAMETER MINUS 3/4 E DIMENSION.

IN SUCH CASES WHERE DIFFERENTIAL ROTATION OCCURS THE CALCULATION SHOULD BE BASED ON THE MAXIMUM POSSIBLE VALUE OF THE COEFFICIENT OF FRICTION.

- (g) IMPACT CAPACITY OF RING OR GROOVE WALL:

$$I_R = \frac{PT}{2}$$

FOR THE RING (INCH POUNDS) ABUTTING COMPONENTS TO HAVE SHARP CORNERS.

$$I_G = \frac{Pd}{2}$$

FOR THE GROOVE (INCH POUNDS).

WHERE: P = ALLOWABLE THRUST LOAD OF RING OR GROOVE (POUNDS).
T = RING THICKNESS (INCHES).
I_G = IMPACT CAPACITY OF GROOVE WALL (INCH POUNDS).
d = GROOVE DEPTH (INCHES).
I_R = IMPACT CAPACITY OF RING (INCH POUNDS).

- * FOR RINGS OF STEEL X = 120,000 P.S.I. ULTIMATE SHEAR STRENGTH FOR RING SIZES UP TO 3/4 INCH.
X = 150,000 P.S.I. ULTIMATE SHEAR STRENGTH FOR RING SIZES 3/4 INCH AND OVER.
W = 250,000 P.S.I. WORKING STRESS.

APPROVED 11 Dec 1958 REVISED 5 FOR CHANGES SEE SHEETS 1 THROUGH 7

P.A. Navy - Wep	TITLE	MILITARY STANDARD
Other Cust WC ASD	RING, RETAINING, INTERNAL, BASIC (TAPERED SECTION TYPE)	MS16625
PROCUREMENT SPECIFICATION MIL-P-21298 IT: 1 CL: 1	SUPERSEDES:	SHEET 6

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

Activity standard is approved by the Department of Defense and is
mandatory on all activities. Selection for all new engineering and design
activities and for repetitive use shall be made from this document.

(B) NOTE: The Government has a royalty free license under Western Electric Inc. copyrights pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government. (U.S. Patent No. 2,841,834.)

FED. SUP CLASS
5340

(a) LOAD CAPACITY, WITH THE RETAINED PART RADIUS OR CHAMFER:
WHEN THE RADIUS OR CHAMFER OF THE RETAINED PART DOES NOT EXCEED THE MAXIMUM RADII ALLOWED FOR THE BOTTOM OF THE RING GROOVE, THE LESSER LOAD CAPACITY COMPUTED FROM THE FORMULAS ON SHEET 6 WILL APPLY. THE CORNER RADII AND CHAMFERS LISTED ON SHEETS 1 THRU 3 WERE CHOSEN AS LARGE AS POSSIBLE FOR THE RING SIZES INVOLVED AND ARE RELATED TO THE MAXIMUM THRUST LOADS LISTED IN THE TABLE BELOW.
IF THE CORNER RADII OR CHAMFERS ARE SMALLER THAN THOSE LISTED, THEN THE THRUST LOADS INCREASE PROPORTIONALLY, IN ACCORDANCE WITH THE FOLLOWING FORMULAS:

$$P = \frac{FCH}{CH} \quad \text{OR} \quad P = \frac{F}{R}$$

WHERE: P = NEW ALLOWABLE THRUST LOAD.
 F = LISTED ALLOWABLE THRUST LOAD.
 CH = NEW (SMALLER) CHAMFER.
 R = LISTED CHAMFER.

NOTE: P = NEW (SMALLER) CORNER RADII.
 R = LISTED CORNER RADII.

LIMIT LOADS LISTED BELOW ARE BASED ON RINGS OF STEEL (WORKING STRESS) = 250,000 P.S.I. IF THE ALLOWABLE GROOVE CAPACITY LOADS, AS CALCULATED BY USING THE FORMULA OF SHEET 6 ARE LESS, THEN THEY SHOULD BE USED.

NOMINAL RING SIZE		ALLOWABLE THRUST LOAD FOR RING ASSEMBLY WITH PARTS HAVING MAXIMUM CORNER RADII OR CHAMFERS.
FROM	TO	
.850	.918	190 LB
.975	.953	550 "
.900	.790	1100 "
.777	.938	1620 "
1.000	1.500	8400 "
1.562	2.000	3900 "
2.062	2.531	6800 "
2.562	3.000	9000 "
3.062	5.000	18000 "
3.850	6.000	19000 "
6.850	7.000	23000 "
7.850	10.000	34000 "

NOTE: THE ABOVE FORMULAS ARE NOT TO BE USED FOR BRITTLE MATERIALS SUCH AS CAST IRON, ETC.
WARNING: RINGS SHOULD NOT BE EXCESSIVELY CONTRACTED DURING INSTALLATION SINCE THIS WILL LEAD TO RING FAILURE. IF RING HAS FLAT BETWEEN THE GROOVE DIA. AND THE OUTSIDE RING DIA. THIS INDICATES THAT THE RING HAS BEEN EXCESSIVELY CONTRACTED, (PROVIDING GROOVE DIA. HAS BEEN MACHINED TO RECOMMENDED DIMENSIONS).

INTERCHANGEABILITY TABLE

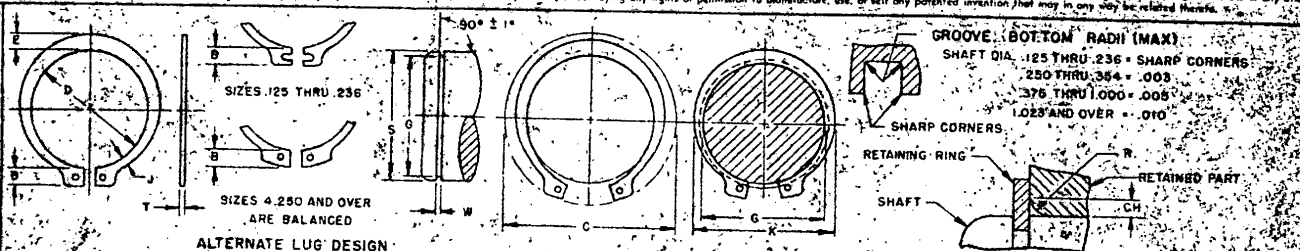
CROSS REFERENCE OF PART NUMBER									
CANCELLED	NEW	CANCELLED	NEW	CANCELLED	NEW	CANCELLED	NEW	CANCELLED	NEW
MS16622	MS16622	MS16622	MS16622	MS16622	MS16622	MS16622	MS16622	MS16622	MS16622
DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER
-2028	-1028	-2108	-1108	-2208	-1208	-2308	-1308	-2408	-1408
-2031	-1031	-2111	-1111	-2211	-1211	-2311	-1311	-2411	-1411
-2037	-1037	-2117	-1117	-2217	-1217	-2317	-1317	-2417	-1417
-2043	-1043	-2123	-1123	-2223	-1223	-2323	-1323	-2423	-1423
-2048	-1048	-2128	-1128	-2228	-1228	-2328	-1328	-2428	-1428
-2050	-1050	-2131	-1131	-2231	-1231	-2331	-1331	-2431	-1431
-2051	-1051	-2137	-1137	-2237	-1237	-2337	-1337	-2437	-1437
-2052	-1052	-2143	-1143	-2243	-1243	-2343	-1343	-2443	-1443
-2054	-1054	-2148	-1148	-2248	-1248	-2348	-1348	-2448	-1448
-2068	-1068	-2150	-1150	-2250	-1250	-2350	-1350	-2450	-1450
-2068	-1068	-2156	-1156	-2256	-1256	-2356	-1356	-2456	-1456
-2078	-1078	-2162	-1162	-2262	-1262	-2362	-1362	-2462	-1462
-2078	-1078	-2168	-1168	-2268	-1268	-2368	-1368	-2468	-1468
-2081	-1081	-2168	-1168	-2278	-1278	-2378	-1378	-2478	-1478
-2086	-1086	-2176	-1176	-2281	-1281	-2381	-1381	-2481	-1481
-2087	-1087	-2181	-1181	-2287	-1287	-2387	-1387	-2487	-1487
-2090	-1090	-2186	-1186	-2290	-1290	-2390	-1390	-2490	-1490
-2093	-1093	-2187	-1187	-2306	-1306	-2478	-1478	-2500	-1500
-2100	-1100	-2192	-1192	-2312	-1312	-2500	-1500	-2500	-1500
-2102	-1102					-2523	-1523		

APPROVED 11 Dec 1958 REVISED 3 FOR CHANGES SEE SHEETS 1 THROUGH 7

P.A. NAVY - May	TITLE	MILITARY STANDARD
Other Code	RING, RETAINED, INTERNAL, BASED (CAPTURED SECTION 777)	MS16625
UC		
ASB		
PROCUREMENT SPECIFICATION	SUPERSEDED	
MS16-21840 TY. 1 CL. 1		
DD FORM 672-1 (Coordinated)		

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ENLARGED DETAILS																				
NOMINAL RING SIZE		D FREE DIAMETER		B		E		J				G W RECOMMENDED GROOVE				K	C	R OF RETAINED PART		Ch
												DIAMETER		WIDTH				MAX.	MAX.	
INCH	MM	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	BASIC	TOL.	MAX.				
125	3.2	.112		.046		.018	±.0015	.011	±.0015	.010	±.001	.117		.012		.148	.222	.010	.006	
156	4.0	.142		.054		.025		.016		.010		.146	±.0015	.012	±.002	.189	.270	.015	.009	
188	4.8	.166	+ .002	.059	±.002	.024		.016		.015		.175	±.0015	.018	±.000	.218	.298	.014	.008	
197	5.0	.179	- .004	.056		.026		.016		.015		.185	TIR	.018		.229	.319	.014	.009	
219	5.6	.196		.056		.028	±.002	.017	±.002	.015		.205		.018		.252	.338	.015	.009	
236	6.0	.215		.056		.031		.019		.015		.222		.018		.272	.355	.016	.010	
250	6.4	.225		.080		.035		.025		.025		.230		.025		.290	.450	.018	.011	
276	7.0	.250		.041		.037		.024		.025		.235		.029		.315	.480	.017	.010	
281	7.1	.256		.080		.036		.025		.025		.261		.029		.326	.490	.020	.012	
312	7.9	.281		.087		.040		.026		.025		.290		.029		.357	.540	.020	.012	
344	8.7	.309		.087		.042		.026		.025		.321		.029		.390	.570	.021	.012	
354	9.0	.320		.087		.046	±.003	.029	±.003	.025	±.002	.330	±.002	.029		.405	.590	.023	.014	
375	9.5	.338	+ .002	.088		.050		.031		.025		.332	.002	.029		.433	.610	.026	.016	
394	10.0	.354	- .005	.087	±.003	.052		.031		.025		.369	TIR	.029		.452	.620	.027	.016	
406	10.3	.366		.097		.054		.033		.025		.392		.029		.468	.630	.028	.017	
438	11.1	.395		.088		.055		.033		.025		.412		.029		.501	.660	.029	.017	
469	11.9	.428		.088		.060		.035		.025		.443		.029		.540	.700	.031	.018	
500	12.7	.461		.108		.065		.035		.035		.468	±.002	.039	±.003	.574	.770	.034	.020	
551	14.0	.509		.108		.053		.039		.035		.519	.004	.039	- .006	.611	.810	.027	.025	
562	14.3	.521		.108		.072		.041		.035		.530	TIR	.039		.644	.820	.039	.023	
594	15.1	.550		.109		.076	±.004	.043	±.004	.035		.559		.039		.680	.860	.039	.023	
625	15.9	.579		.110		.080		.045		.035		.588		.039		.715	.900	.043	.025	
669	17.0	.621	+ .005	.110		.082		.043		.035		.629		.039		.755	.930	.040	.024	
572	17.1	.621	- .010	.110		.082		.043		.035		.631	±.003	.039		.758	.930	.040	.024	
688	17.5	.635		.136		.084		.048		.042		.646	.004	.046		.779	1.010	.042	.025	
750	19.0	.693		.136		.092		.051		.042		.704		.046		.850	1.090	.046	.027	
781	19.8	.722		.136	±.004	.094	±.005	.052	±.005	.042		.733		.046		.883	1.120	.047	.028	
812	20.6	.751		.137		.096		.054		.042		.750		.046						
875	22.2	.810		.137		.096		.054		.042		.750		.046						

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RECEIVED - 11 Dec 1944 REVISED

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P.A. MIL-STD-1246 REV. 10-62	TITLE	NOMINAL RING SIZE		FREE DIAMETER		B		E		J		T		G		W		*K	*C	*R	*CD
		INCH		MM		BASIC		TOL.		BASIC		TOL.		BASIC		TOL.		MAX.		MAX.	
		INCH		MM		BASIC		TOL.		BASIC		TOL.		BASIC		TOL.		MAX.		MAX.	
DD FORM 672-1 10-62	RING RETAINING, EXTERNAL, BASIC (TAPERED SECTION TYPE)	3.750	.952	3.468		.332		.310		.160		.109		3.552	.120	.120		4.037	4.500	.133	.080
		3.875	.984	3.584		.330		.318		.163		.109		3.673	.120	.120		4.169	4.600	.137	.082
		3.938	1.000	3.642		.342		.318		.163		.109		3.734	.120	.120		4.230	4.700	.137	.082
		4.000	1.016	3.700		.352		.318		.163		.109		3.792	.120	.120		4.288	4.780	.135	.081
		4.250	1.080	3.989		.395		.318		.176		.109		4.065	.120	.120		4.558	5.090	.146	.088
		4.375	1.111	4.105		.395		.318		.181		.109		4.190	.120	.120		4.683	5.220	.146	.088
		4.500	1.143	4.223		.404		.318		.188		.109		4.310	.120	.120		4.730	5.370	.146	.088
		4.750	1.206	4.458		.429		.303		.136		.109		4.550	.120	.120		4.996	5.670	.115	.069
		5.000	1.270	4.692		.450		.360		.194		.109		4.790	.120	.120		5.346	5.960	.166	.099
		5.250	1.333	4.927		.472		.372		.211		.125		5.030	.139	.139		5.605	6.270	.169	.101
		5.500	1.397	5.162		.497		.390		.209		.125		5.265	.139	.139		5.867	6.570	.175	.105
		5.750	1.460	5.396		.518		.408		.220		.125		5.505	.139	.139		6.134	6.860	.184	.110
		6.000	1.524	5.631		.540		.381		.171		.125		5.745	.139	.139		6.302	7.160	.143	.086
		6.250	1.587	5.866		.561		.396		.176		.156		5.985	.174	.174		6.568	7.460	.146	.089
		6.500	1.651	6.100		.586		.438		.236		.156		6.225	.174	.174		6.905	7.870	.191	.114
		6.750	1.714	6.335		.608		.456		.246		.156		6.465	.174	.174		7.172	8.060	.200	.120
		7.000	1.778	6.570		.629		.474		.256		.156		6.705	.174	.174		7.439	8.360	.208	.125
		7.500	1.905	7.039		.676		.507		.269		.187		7.180	.209	.209		7.963	8.960	.208	.132
		8.000	2.032	7.508		.722		.540		.287		.187		7.660	.209	.209		8.493	9.560	.235	.141
		8.500	2.159	7.977		.766		.573		.305		.187		8.140	.209	.209		9.023	10.160	.250	.150
		9.000	2.286	8.445		.812		.609		.324		.187		8.620	.209	.209		9.557	10.750	.267	.160
		9.500	2.413	8.915		.854		.642		.347		.187		9.100	.209	.209		10.086	11.340	.281	.168
		10.000	2.540	9.385		.900		.675		.357		.187		9.575	.209	.209		10.610	11.940	.294	.176

- * T-dimensions and tolerances apply to unplated rings only. For plated and corrosion resisting steel rings size 1.023 and smaller the maximum T-dimension shall not exceed the minimum W-dimension minus .0002 inch. For plated and corrosion resisting steel rings size 1.062 and larger the maximum T-dimension may exceed the listed maximum T-dimension (T + tolerance), by a maximum of .002 inch.
- * K= maximum diameter when the ring is sprung over the shaft prior to installation into the groove. (Design Reference Dimension).
- * C= Actual clearance diameter when the ring is sprung over the shaft prior to installation into the groove. (Design Reference Dimension).
- * R and C= Radii or chamfers allowable on parts to be retained by the rings. Thrust loads for rings, retaining parts with corner radii or chamfers are tabulated on sheet 8.
- * T.I.R. = (Total indicator reading) is the maximum allowable deviation of concentricity between the groove and the shaft.
- Dimensions: In inches unless otherwise specified.

APPROVED 11 Dec. 1956 REVISED

NOTE: The Government has a royalty-free license under United States Patent No. 2,416,652 for the use of the following listed patent for the benefit of the Government of the United States of America and under the following listed patent for the benefit of the Government of the United States of America for use in equipment to be delivered to the Government: (U.S. Patent No. 2,416,652)

FED-STD CLASS 5340

NOTE: The Government has a royalty free license under Waldeck Kohlhör Inc. copyrights, pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government (U. S. Patent No. 2,416,852).

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FED. SUP CLASS 5340													
NOMINAL RING SIZE	BERYLLIUM COPPER		BERYLLIUM COPPER CADMIUM PLATED		STEEL ZINC PLATED		STEEL PHOSPHATE COATED		STEEL, CORROSION RESISTING		P.L.I.F.		
	DASH NO.	FIN	DASH NO.	FIN	DASH NO.	FIN	DASH NO.	FIN	DASH NO.	FIN			
125	MS 16624-12		MS 16624-1012		MS 16624-1025		MS 16624-3025		MS 16624-4025				
156	15		1015		1027		3027		4027				
188	18		1018		1028		3028		4028				
197	19		1019		1031		3031		4031				
219	21		1021		1034		3034		4034				
236	23		1023		1035		3035		4035				
					1037		3037		4037				
					1039		3039		4039				
					1040		3040		4040				
					1043		3043		4043				
					1046		3046		4046				
					1050		3050		4050				
					1052		3052		4052				
					1056		3056		4056				
					1059		3059		4059				
					1062		3062		4062				
					1066		3066		4066				
					1067		3067		4067				
					1068		3068		4068				
					1075		3075		4075				
					1078		3078		4078				
					1081		3081		4081				
					1087		3087		4087				
					1093		3093		4093				
					1098		3098		4098				
					1100		3100		4100				
					1102		3102		4102				
					1106		3106		4106				
					1112		3112		4112				
					1118		3118		4118				
					1125		3125		4125				
					1131		3131		4131				
					1137		3137		4137				
					1143		3143		4143				
					1150		3150		4150				
					1156		3156		4156				
					1162		3162		4162				
					1168		3168		4168				
					1175		3175		4175				
					1177		3177		4177				
		</											

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		DASH NO.	FIN	DASH NO.	FIN	DASH NO.	FIN	DASH NO.	FIN	DASH NO.	FIN	
Other Cust	Nord	MS 16624-181		MS 16624-1181		MS 16624-2181		MS 16624-3181		MS 16624-4181		5340
Ord		187		1187		2187		3187		4187		
USAF		196		1196		2196		3196		4196		
		200		1200		2200		3200		4200		
		206		1206		2206		3206		4206		
		212		1212		2212		3212		4212		
		215		1215		2215		3215		4215		
		225		1225		2225		3225		4225		
		231		1231		2231		3231		4231		
		237		1237		2237		3237		4237		
		243		1243		2243		3243		4243		
		250		1250		2250		3250		4250		
		255		1255		2255		3255		4255		
		262		1262		2262		3262		4262		
		268		1268		2268		3268		4268		
		275		1275		2275		3275		4275		
		287		1287		2287		3287		4287		
		293		1293		2293		3293		4293		
		300		1300		2300		3300		4300		
		306		1306		2306		3306		4306		
		312		1312		2312		3312		4312		
		315		1315		2315		3315		4315		
		325		1325		2325		3325		4325		
		334		1334		2334		3334		4334		
		343		1343		2343		3343		4343		
		350		1350		2350		3350		4350		
		354		1354		2354		3354		4354		
		362		1362		2362		3362		4362		
		368		1368		2368		3368		4368		
		375		1375		2375		3375		4375		
		387		1387		2387		3387		4387		
		393		1393		2393		3393		4393		
		400		1400		2400		3400		4400		
		425		1425		2425		3425		4425		
		437		1437		2437		3437		4437		
		450		1450		2450		3450		4450		
		475		1475		2475		3475		4475		
		500		1500		2500		3500		4500		
		525		1525		2525		3525		4525		
		550		1550		2550		3550		4550		
		575		1575		2575		3575		4575		
		600		1600		2600		3600		4600		
		625		1625		2625		3625		4625		
		650		1650		2650		3650		4650		
		675		1675		2675		3675		4675		
		MS 16624-675		MS 16624-1675		MS 16624-2675		MS 16624-3675		MS 16624-4675		

APPROVED 11 Dec. 1988 REVISED

PROGRESSION SPECIFICATION MIL-R-21249 TY. 1, Q1, 2

SUPERSEDES: MS 9012 (ASQ) and MS 9013 (ASQ)

RING, RETAINING, EXTERNAL, BASIC (TAPERED SECTION TYPE)

MILITARY STANDARD

MS 16624

SHEET 5 OF 8

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P.A.		NOMINAL RING SIZE		STEEL		STEEL PLATED		STEEL ZINC PLATED		STEEL PHOSPHATE COATED		STEEL, CORROSION RESISTING	
Other Cust.		DASH NO.		DASH NO.		DASH NO.		DASH NO.		DASH NO.		DASH NO.	
Ord USA?		7.000	MS 16624-700	MS 16624-1700	MS 16624-2700	MS 16624-3700	MS 16624-4700						
		7.500	MS 16624-750	MS 16624-1750	MS 16624-2750	MS 16624-3750	MS 16624-4750						
		8.000	MS 16624-800	MS 16624-1800	MS 16624-2800	MS 16624-3800	MS 16624-4800						
		8.500	MS 16624-850	MS 16624-1850	MS 16624-2850	MS 16624-3850	MS 16624-4850						
		9.000	MS 16624-900	MS 16624-1900	MS 16624-2900	MS 16624-3900	MS 16624-4900						
		9.500	MS 16624-950	MS 16624-1950	MS 16624-2950	MS 16624-3950	MS 16624-4950						
		10.000	MS 16624-1000	MS 16624-2000	MS 16624-3000	MS 16624-4000	MS 16624-5000						

MATERIAL:
 (a) Steel, carbon, Federal Standard 66, Steel Nos. 1066 thru 1090.
 (b) Steel, corrosion resisting, (see Procurement Specification).
 (c) Sizes .125 to .236 inclusive are only available in beryllium copper Fed. Spec. QQ-C-533.

HARDNESS:
 Shaft dia.
 .125 to .236 incl.
 .250 to .469 incl.
 .500 to .812 incl.
 .875 to 1.023 incl.
 1.062 to 3.437 incl.
 3.500 and over

Beryllium Copper
 Rockwell 15N-77-82

Steel
 Rockwell 30N-69-73
 " C-47-53
 " C-47-52
 " C-45-50

Shaft dia.
 .250 to .812 and over

Corrosion Resisting Steel
 Rockwell 30N-69-73
 Rockwell C-44-51

PROTECTIVE COATINGS AND TREATMENTS:
 (a) Zinc plating, QQ-Z-325, Type II, Class 3
 (b) Cadmium plating, QQ-P-416, Type II, Class 2
 (c) Phosphate coating, MIL-C-16232, Type II
 (d) Corrosion resisting steel rings shall be passivated (see Procurement Specification)

NOTES:
 (a) This Standard takes precedence over documents referenced herein.
 (b) Referenced documents shall be of the issue in effect on date of invitations for bids.

PART NUMBER = (MS number) - (ring dash number)
 EXAMPLE - MS 16624-100 is the part number for a steel, External Retaining Ring for use on a 1.000 diameter shaft.

APPROVED: 11 Dec. 1958 REVISED

P.A.		TITLE		MILITARY STANDARD	
Other Cust.		RING, RETAINING, EXTERNAL, BASIC (TAPERED SECTION TYPE)		MS 16624	
Ord USA?		SUPERSEDES: MS 9012 (ASG) and MS 9013 (ASG)		SHEET 6 OF 8	
PROCUREMENT SPECIFICATION MIL-21247 TY. 1 CL. 2					

NOTE: The Government has a royalty free license under Wales Mohinor Inc. copyrights, pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government (U.S. Patent No. 2,416,852)

NOTES: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement, the United States Government hereby disclaims all responsibility, and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner endorsing the validity of any other data or information, or accepting any rights or permissions by reproduction, use, or in any other way, to all or any part thereof.

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for competitive use shall be made from this document.

P.A. Word Other Code ORG ORG ORG		TITLE RING, RETAINING, EXTERNAL, BASIC (TAPERED SECTION TYPE)		MILITARY STANDARD MS 16624	
PROCUREMENT SPECIFICATION MIL-A-21248 TY. 1 CL. 2		SUPERSEDED BY MS 9012 (ASQ) and MS 9013 (ASQ)		SHEET 7 OF 8	

FED. SUP. CLASS
 3340

RECOMMENDED DESIGN LIMITATIONS AND USAGE

(a) Intended use: To provide shoulders for positioning and retaining machine components on shafts. Tapered design principle permits rings to maintain practically constant circularity and pressure against bottom of groove, counteracting considerable centrifugal force (see chart below). Rings for shaft diameters over 4 inches are specially dimensioned to maintain balance in rotation. The use of the following formulas are based on the fact that the ring will not fail in compression.

Approximate Safety RPM Limits

Shaft Size RPM Limit	1 1/4"	1 1/2"	2"	3"	4"	5"	6"	8"	10"
	80,000	140,000	20,000	10,000	6,700	5,000	3,400	2,500	2,000

(b) Allowable thrust load capacity of the rings. Abutting components to have sharp corners.

$P = \text{Allowable thrust load (pounds)}$
 $S = \text{Shaft diameter (inches)}$
 $T = \text{Ring thickness (inches)}$
 $X = \text{Ultimate shear strength of the ring material (P.S.I.)}$
 $P = \text{Factor of safety}$

A safety factor, $P = 4$, is recommended, since the ring under load is subjected not only to pure shear stresses but also to bending stresses.

(c) Allowable load capacity of groove wall -

$F = \text{Allowable compression load (pounds)}$
 $S = \text{Shaft diameter (inches)}$
 $d = \text{Groove depth (inches)}$
 $Y = \text{Yield strength in compression of the groove material (P.S.I.)}$
 $P = \text{Factor of safety}$

To insure a safe working load, a safety factor, $P = 2$, is recommended.

(d) Minimum distance between outer groove wall and end of shaft -

$Z = 3d$
 where:
 $Z = \text{Minimum distance between outer groove wall and end of shaft (inches)}$
 $d = \text{Groove depth (inches)}$

(e) Allowable Shaft Diameter -

$S = \sqrt{\frac{4PT}{Y}}$
 where:
 $S = \text{Allowable shaft diameter}$
 $G = \text{Groove diameter}$
 $P = \text{Factor of safety (see Formula (c) above)}$
 $T = \text{Design load}$
 $Y = \text{Yield strength in compression of groove material (P.S.I.)}$

(f) Differential Rotation:

The conditions under which a retaining ring may be used when adjacent parts rotate relative to it, fall into two categories:

- (1) Where no thrust is exerted by adjacent part; in this case, differential rotation of ring and adjacent part creates no element of risk in the application of the rings because no frictional torque is exerted by the machine part on the ring.
- (2) Consideration must be given to the magnitude of the thrust involved. The friction moment may not exceed the bending moment, which the ring can tolerate without releasing its pressure against the bottom of the groove, formulated as follows:

$\frac{PTN}{18} \leq \frac{S^3 E T^2}{18}$ or $\frac{PTN}{18} \leq \frac{S^3 E T^2}{18}$

where:
 $P = \text{Design load}$
 $T = \text{Ring thickness (inches)}$
 $N = \text{Greatest width section of ring (inches)}$
 $S = \text{Neutral ring diameter (inches) - Free diameter plus } 1/8 \text{ x dimension of the coefficient of friction.}$

In such cases where differential rotation occurs, the calculation should be based on the maximum possible value of the coefficient of friction.

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NOTICE—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever, and the fact that the Government may have furnished, furnished, or in any way supplied, the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

(g) Impact capacity of ring or groove wall:

$$I_R = \frac{P_T}{2} \text{ - For the ring (inch pounds). Abutting components to have sharp corners.}$$

$$I_G = \frac{P_d}{2} \text{ - For the groove (inch pounds)}$$

Where:

P = Allowable thrust load of rings or grooves (Pounds)

T = Ring thickness (inches)

I_G = Impact capacity of groove wall (Inch Pounds)

d = Groove depth (inches)

I_R = Impact capacity of ring (Inch Pounds)

*For rings of steel

X = 120,000 P.S.I. ultimate shear strength for ring sizes up to 3/4 inch.

X = 150,000 P.S.I. ultimate shear strength for ring sizes 3/4 inch and over.

S = 250,000 P.S.I. working stress

*For rings of Beryllium copper

X = 110,000 P.S.I. ultimate shear strength

S = 180,000 P.S.I. working stress

(h) Load capacity, with the retained part radiused or chamfered:

When the radius or chamfer of the retained part does not exceed the maximum radius allowed for the bottom of the ring groove, the lesser load capacity computed from the formulas on sheet 7 will apply. The corner radii and chamfers listed on sheets 1 thru 3 were chosen as large as possible for the ring sizes involved and are related to the maximum thrust loads listed in the table below. If the corner radii or chamfers are smaller than those listed, then the thrust loads increase proportionally, in accordance with the following formulas:

$$P_1 = \frac{P \cdot Ch}{Ch^1} \text{ or}$$

$$P_1 = \frac{P \cdot R}{R^1}$$

Where:

P₁ = New allowable thrust load

P = Listed allowable thrust load

Ch¹ = New (smaller) chamfer

Ch = Listed chamfer

R¹ = New (smaller) corner radius

R = Listed corner radius

Limit loads listed below are based on rings of beryllium copper (working stress 180,000 P.S.I.) for sizes below 1/4" and on rings of steel (working stress 250,000 P.S.I.) for sizes 1/4" and over. If the allowable groove capacity loads as calculated by using the formula on sheet 7 are less, then they should be used.

NOMINAL RING SIZE		Allowable thrust load for ring assemblies with parts having maximum corner radii or chamfers.
FROM	TO	
.125	.156	45 LB
.188	.236	105 "
.250	.469	470 "
.500	.672	910 "
.688	1.023	1340 "
1.062	1.500	1950 "
1.562	2.000	3000 "
2.062	2.687	5000 "
2.750	3.437	7350 "
3.500	5.000	10500 "
5.250	6.000	13500 "
6.250	7.000	21000 "
7.500	10.000	30000 "

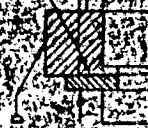
NOTE: The above formulas are not to be used for brittle materials such as cast iron etc.

WARNING: Rings should not be over expanded during installation since this will lead to ring failure. If ring has play between the groove dia. and the inside ring dia. this indicates that the ring has been over expanded, (providing groove has been machined to recommended dimensions).

APPROVED 11 Dec. 1958 REVISED

NOTE: The Government has a royalty free license under Waldo Kohner Inc. copyrights, pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government (U.S. Patent No. 2,416,852)

FED. SUP. CLASS
3540

[illegible]

SHAFT DIAS.	040 - 062	SHAFT CORNER
SHAFT DIAS.	094 TO 250 INCL.	008
SHAFT DIAS.	312 TO 437 INCL.	010
SHAFT DIAS.	500 AND OVER	018

ENLARGED DE TAILS

Notes - Dimensions and tolerances apply to unplated rings only. For plated and corrosion resisting steel rings sizes 5.75 and smaller the maximum "W" dimension shall not exceed the minimum "W" dimension minus .0002 inch. For plated and corrosion resisting steel rings sizes .754 and larger the maximum "W" dimension may exceed the listed maximum "W" dimension. (Tolerance) By a maximum of .0001 inch. "A" and "CH" - Radii of chamfers allowable on parts to be retained by the rings. Thrust loads of rings retaining parts with proper seating. "C" or chamfers see note on sheet. T.I.R. (Total Indicator Reading) is the maximum allowable deviation of concentricity between the groove and the shaft. Dimensions - In inches unless otherwise specified.

APPROVED 11 Dec 1958 REVISED

MS 16633

P.A. Nord
Other Case
Ord
USAF
PERFORMANCE SPECIFICATION
MIL-STD-2048 199 1 CLASS 6

NOTE: The Government has a royalty free license under Walde Kohler, Inc. copyrights pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government or for use in equipment to be delivered to the Government.
(U.S. Patent No. 2,411,761).

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This military standard is approved by the Department of Defense and is mandatory on all activities. Submission for all new engineering and design applications and for reprints must be made from this document.

P.A. Word		TITLE		MILITARY STANDARD	
Other Code	Word	RING, RETAINING, EXTERNAL, "F" (REDUCED SECTION TYPE)		MS 16633	
PROCUREMENT SPECIFICATION		SUPERSEDES:		SHEET 2	
MIL-R-21248 TYPE I, CLASS 6					
MATERIAL	FORMAL RING	(a) Steel, carbon, Federal Standard 66, Steel Nos. 1066 thru 1090 (b) Steel, Corrosion Resisting, (See Procurement specification) (c) Beryllium Copper, Fed. Spec. QQ-C-533. Shaft Diameter 040 .062 to .125 incl. .140 to .312 incl. .375 to 1.375 incl. Protective Coatings and Treatments: (a) Zinc Plating, QQ-2-325, Type II, Class 3 (b) Cadmium plating, QQ-P-416, Type II, Class 2 (c) Phosphate coating, MIL-G-16332, Type II (d) Corrosion Resisting Steel rings shall be passivated (See Procurement specification)			
	SIZE				
DASH NO.	MS16633-6	Beryllium Copper Rockwell 15H-77-82			
	MS16633-9				
DASH NO.	MS16633-1006	Steel Rockwell 15H-84.5-87 Rockwell 30N-66.5-71 Rockwell C-47-52			
	MS16633-1009				
DASH NO.	MS16633-1011	Steel, Corrosion Resisting			
	MS16633-1012				
DASH NO.	MS16633-1014	Steel, Corrosion Resisting			
	MS16633-1015				
DASH NO.	MS16633-1017	Steel, Corrosion Resisting			
	MS16633-1018				
DASH NO.	MS16633-1021	Steel, Corrosion Resisting			
	MS16633-1025				
DASH NO.	MS16633-1031	Steel, Corrosion Resisting			
	MS16633-1037				
DASH NO.	MS16633-1043	Steel, Corrosion Resisting			
	MS16633-1050				
DASH NO.	MS16633-1062	Steel, Corrosion Resisting			
	MS16633-1074				
DASH NO.	MS16633-1075	Steel, Corrosion Resisting			
	MS16633-1087				
DASH NO.	MS16633-1098	Steel, Corrosion Resisting			
	MS16633-1118				
DASH NO.	MS16633-1137	Steel, Corrosion Resisting			
	MS16633-137				
DASH NO.	MS16633-3006	Steel, Corrosion Resisting			
	MS16633-3009				
DASH NO.	MS16633-3011	Steel, Corrosion Resisting			
	MS16633-3012				
DASH NO.	MS16633-3014	Steel, Corrosion Resisting			
	MS16633-3015				
DASH NO.	MS16633-3017	Steel, Corrosion Resisting			
	MS16633-3018				
DASH NO.	MS16633-3021	Steel, Corrosion Resisting			
	MS16633-3025				
DASH NO.	MS16633-3031	Steel, Corrosion Resisting			
	MS16633-3037				
DASH NO.	MS16633-3043	Steel, Corrosion Resisting			
	MS16633-3050				
DASH NO.	MS16633-3062	Steel, Corrosion Resisting			
	MS16633-3074				
DASH NO.	MS16633-3075	Steel, Corrosion Resisting			
	MS16633-3087				
DASH NO.	MS16633-3098	Steel, Corrosion Resisting			
	MS16633-3118				
DASH NO.	MS16633-3137	Steel, Corrosion Resisting			
	MS16633-4006				
DASH NO.	MS16633-4009	Steel, Corrosion Resisting			
	MS16633-4011				
DASH NO.	MS16633-4012	Steel, Corrosion Resisting			
	MS16633-4014				
DASH NO.	MS16633-4015	Steel, Corrosion Resisting			
	MS16633-4017				
DASH NO.	MS16633-4018	Steel, Corrosion Resisting			
	MS16633-4021				
DASH NO.	MS16633-4025	Steel, Corrosion Resisting			
	MS16633-4031				
DASH NO.	MS16633-4037	Steel, Corrosion Resisting			
	MS16633-4043				
DASH NO.	MS16633-4050	Steel, Corrosion Resisting			
	MS16633-4062				
DASH NO.	MS16633-4074	Steel, Corrosion Resisting			
	MS16633-4075				
DASH NO.	MS16633-4087	Steel, Corrosion Resisting			
	MS16633-4098				
DASH NO.	MS16633-4118	Steel, Corrosion Resisting			
	MS16633-4137				

NOTES:

(a) This standard takes precedence over documents referenced herein.

(b) Referenced documents shall be of the issue in effect on date of invitation for bids.

PART NUMBER - (MS Number) - (ring dash number).

EXAMPLE - MS16633-1118 is the part number for a steel, External "F" Retaining Ring for use on a 1.188 diameter shaft.

APPROVED 11 Dec 1958 (REVISED)

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

NOTICE—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever, and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication, or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

RECOMMENDED DESIGN LIMITATIONS AND USAGE

- (a) Intended use - To provide unusually large shoulders for positioning and maintaining machine components on shafts. They are applied radially and withstand considerable thrust load. They are of advantage where axial assembly of a retaining ring is not possible and where fast assembly for mass production lines is essential. The use of the following formulas are based on the fact that the ring material will not fail in compression.

Approximate Safety R.P.M. Limits:	1/2"	1"
Shaft size	1/4"	
R.P.M. Limit	25,000	6,500

- (b) Allowable thrust load capacity of the rings. Abutting components to have sharp corners:
- $P = \frac{WSTI}{3F}$ Where:
- P = Allowable thrust load (pounds)
 S = Shaft diameter (inches)
 T = Ring thickness (inches)
 I = Ultimate shear strength of the ring material (P.S.I.)
 F = Factor of safety
- A safety factor, $F=3$, is recommended, since the ring under load is subjected not only to pure shear stresses but also to bending stresses.

- (c) Allowable load capacity of groove wall:
- $P = \frac{WGDY}{3F}$ Where:
- P = Allowable compression load (pounds)
 G = Groove diameter (inches)
 D = Groove depth (inches)
 Y = Yield strength in compression of the groove material (P.S.I.)
 F = Factor of safety
- To insure a safe working load a safety factor, $F=2$, is recommended.

- (d) Minimum distance between outer groove wall and end of shaft:
- $Z = 2d$ Where:
- Z = Minimum distance between outer groove wall and end of shaft (inches)
 d = Groove depth (inches)

- (e) Differential Rotation:
- The conditions under which a retaining ring may be used when adjacent parts rotate relative to it, fall into two categories:
- (1) Where no thrust is exerted by adjacent part; in this case, differential rotation of ring and adjacent part creates no element of risk in the application of the rings because no frictional torque is exerted by the machine part on the ring.
 - (2) Consideration must be given to the magnitude of the thrust involved. The friction moment may not exceed the bending moment, which the ring can tolerate without releasing its pressure against the bottom of the groove, formulated as follows:

$$fPN \leq \frac{STE^2}{18N} \quad \text{or} \quad \text{Where:}$$

$$P \leq \frac{STE^2}{f18N}$$

P = Allowable thrust load exerted by adjacent part (pounds)
 f = Coefficient of friction
 S = Working stress of ring under maximum expansion (P.S.I.)
 T = Ring thickness (inches)
 E = Smallest width section of ring (inches)
 N = Neutral ring diameter (inches) - Free diameter plus $1\frac{1}{2}$ E dimension.

In such cases where differential rotation occurs, the calculation should be based on the maximum possible value of the coefficient of friction.

- (f) Impact capacity of ring or groove wall:
- $IR = \frac{PT}{2}$ For the ring (inch pounds). Abutting components to have sharp corners.
- $IG = \frac{PD}{2}$ For the groove (inch pounds).
- Where:
- P = Allowable thrust load of ring or groove (pounds)
 T = Ring thickness (inches)
 D = Impact capacity of groove wall (inch pounds)
 D = Groove depth (inches)
 IR = Impact capacity of ring (inch pounds)

APPROVED 11 Dec. 1953 REVISED

NOTE: The Government has a royalty free license under United States Patent No. 2,411,761, copyright pertaining to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government to use in equipment to be delivered to the Government (U.S. Patent No. 2,411,761).

RED. SUP. CLASS
5340

MILITARY STANDARD
MS 16633

NOTE: The Government has a royalty free license under Walden Kohinoor Inc. copyrights pertinent to portions of the information contained herein and under the following listed patent for the benefit of manufacturers of the item for the Government, or for use in equipment to be delivered to the Government.
(U.S. Patent No. 2,411,761)

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This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

*For rings of steel
X = 100,000 P.S.I. Ultimate shear strength for rings .010" and .015 thick
X = 120,000 P.S.I. Ultimate shear strength for rings .025 thick.
X = 150,000 P.S.I. Ultimate shear strength for rings over .025 thick.
S = 250,000 P.S.I. Working stress
*For rings of Beryllium Copper
X = 95,000 P.S.I. Ultimate shear strength for rings .010 thick.
S = 100,000 P.S.I. Working stress

(E) Load capacity with the retained part radiused or chamfered.
The allowable thrust loads, when computed from the formulas on sheet 3, will not be affected when the (E) rings are used against parts having corner radii or chamfers up to the listed maximum dimensions.

NOTE: The above formulas are not to be used for brittle materials such as cast iron, etc.

WARNING: Rings shall not be over expanded during installation since this will lead to ring failure. If ring has play between the groove diameter and the inside ring diameter this indicates that the ring has been over expanded. (Providing groove has been machined to recommended dimensions).

FED. SUP CLASS
5340

P.A. Nord Other Cust Ord USAF	TITLE RING, RETAINING, EXTERNAL "E" (REDUCED SECTION TYPE)	MILITARY STANDARD MS 16633
PROCUREMENT SPECIFICATION MIL-R-21248 TYPE I, CLASS 5	SUPERSEDES	SHEET 4 OF

APPROVED 11 Dec. 1958 REVISED

General Description: 1/8 x 1/4 Flanged

Manufacturer's Basic Designation:

Miniature Precision Bearings: S418FCHH
New Hampshire Ball Bearings: SFR144PP

Basic Dimensions: Bore .12500/.12485

O.D. .25000/.24985

Width .1094/.1084

Dimensional Tolerances: ABEC-7 or better

Material: Vacuum melt AISI 440C stainless

Shield: Double

Retainer: Crown

Radial Play: .0005/.0008

Lubrication: Lubricant: Anderson L-245X filtered 1.2 micron max.

Application: Dip and centrifuge 300g 1. minute

Procurement Specification: Current good practice

Eccentricity: - -

Marking: - -

Configuration: - -

Preload: - -

Smootherator: Dwell 1 max., Count 0 - as lubricated

Torque Test: - -

Axial Spring Rate: - -

Other: - -

REVISIONS			
SYM.	DESCRIPTION	BY	DATE

2500-51

REV.

PRINT ISSUED MAY 1 1964

ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.			TITLE		STAT
					Ball Bearing - Radial		
					DRAWN	DATE	SCALE
					oh	8-9-63	- - -
					CHECKED	DATE	DWG. NO.
							2500-51
					APPROVED	DATE	REV.

REV. NO.		1360-5-17		REV.
REVISIONS				
SYM.	DESCRIPTION	BY	DATE	

PIN SPIROL
 $\frac{1}{32}$ DIA. x $\frac{1}{8}$ LONG
 MEDIUM DUTY
 NICKEL ALLOY STAINLESS STEEL PASSIVATE

CEM. COMPANY
 24 SCHOOL ST.
 DANIELSON, CONN.

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT
DECIMAL DIM. $\pm .005$				NO. REQ'D.		PIN, SPIROL		
FRACTIONAL DIM. $\pm 1/64$				MATERIAL		DATE 11-29-60		SCALE
ANGULAR DIM. $\pm 5^\circ$				FINISH		DATE		STAT
ALL DIMENSIONS GIVEN IN INCHES				SPEC.		DWG. NO.		
				SPEC.		A 1360-5-17		REV.
						DATE 12-1-60		

CLEARPRINT 1000H

PRODUCTION DRAWING CONTROL

REVISIONS		DWG. NO.	REV.
		1360-5-18	
SYM.	DESCRIPTION	BY	DATE

PIN, SPIROL1/32 X 3/16, MEDIUM DUTYMAT'L: 302 STAINLESS STEELQQ-3-766a, CLASS 1, COND. AFINISH: PASSIVATEPURCHASE FROM C.E.M. CO.24 SCHOOL ST. DANIELSON, CONN.C.E.M. # 032-0188 MDP

LIMITS OF ACCEPTABLE WORKMANSHIP
ARE DEFINED IN MP-2000

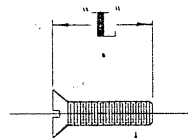
PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. ± .005 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 5° ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.	MATERIAL SPEC.	FINISH SPEC.	W.O. NO. REQ'D.	TITLE PIN, SPIROL			
						DATE 1-4-61	SCALE		
						DATE 2-3-61	DWG. SIZE A	DWG. NO. 1360-5-18	REV.

PART NUMBER	LENGTH L	THREAD	MAT'L	FINISH	REMARKS
1360-6-23	5/32"	#4-48	CORROSION RESISTANT	PASSIVATE MIL-S-5002	MARK FROM M355250-23
" " 24	7/16"	#0-80	BRASS		
" " 25	2 5/16"	#4-40	CORROSION RESISTANT	PASSIVATE MIL-S-5002	
" " 26	7/32"	#4-48	"	"	
" " 27	2 3/4"	#4-40	"	"	
" " 28	5/32"	#4-48	"	"	
" " 29	5/16"	#4-48	"	"	
" " 30	SEE	SEPARATE	DRAWING		
" " 31	9/16"	#4-48	CORROSION RESISTANT	PASSIVATE MIL-S-5002	
" " 32	SEE	SEPARATE	DRAWING		
" " 33	3/8"	#3-56	CORROSION RESISTANT	PASSIVATE MIL-S-5002	
" " 34					
" " 35					
" " 36	SEE	SEPARATE	DRAWING		
" " 37	5/16"	#5-40	CORROSION RESISTANT	PASSIVATE MIL-S-5002	
" " 38	3/8"	#5-40	"	"	
" " 39	1/4"	#5-40	"	"	
" " 40	2 3/16"	#4-48	"	"	
" " 41	2 3/8"	#4-48	"	"	
" " 42	5/16"	#6-32	"	"	
" " 43	1/16"	#5-40	"	"	
" " 44	1 1/8"	#4-40	"	"	
" " 45	1/8"	#0-80	"	"	
" " 46	9/16"	#0-80	"	"	
" " 47	3/32"	#0-80	"	"	
" " 48	SEE	SEPARATE	DRAWING		
" " 49	SEE	SEPARATE	DRAWING		
" " 50	13/64	#4-48	CORROSION RESISTANT	PASSIVATE MIL-S-5002	

1360-6-
E

REVISIONS		DWG. NO.	REV.
		1360-6-	E
SYM.	DESCRIPTION	BY	DATE
D	REDRAWN & ADDED 1360-6-45 46, 47 TO DWG.	NEB	11-16-62
E	ADDED 1360-6-50 TO DWG	LT	2-11-63



NOTE:
1360-6-23 & 1360-6-28 HAVE THE SAME

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES UNLESS OTHERWISE SPECIFIED DECIMAL DIM. ± .001 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 1° ALL DIMENSIONS GIVEN IN INCHES		NEXT ASSY. NO. REQ.	MATERIAL SPEC.	FINISH SPEC.	W.O. NO. REQ.	TITLE SCREW MACHINE FLAT C SINK HEAD SLOTTED	STAT
DRAWN CHECKED APPROVED		DATE DATE DATE	SCALE ~	DWG. NO. B	DWG. NO. 1360-6-	REV. E	DATE 11-16-62

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN WP-2000			W.O.		TITLE		ST.	
TOLERANCES (UNLESS OTHERWISE SPECIFIED)			NEXT ASS'Y.	NO. REQ'D.	NO. REQ'D.	#1-72 SCREEN		
DECIMAL DIM.	± .005				DRAWN	DATE	SCALE	
FRACTIONAL DIM.	± 1/64		MATERIAL	FINISH	PSH	11/29/62		
ANGULAR DIM.	± 5°		SPEC. <i>~</i>	SPEC. <i>—</i>	CHECKED	DATE	DWG. NO.	REV.
ALL DIMENSIONS GIVEN IN INCHES					APPROVED	DATE	DWG. SIZE	
							A	1360-6-14

STAT

PRODUCTION DRAWING CONTROL C
RDP78 03330A003300010001-9

NOTES:

1. INTERPRET DIMENSIONS, SYMBOLS,
ETC. IN ACCORDANCE WITH
LISTED DOCUMENTS AS FOLLOWS:
DIMENSIONING
AND TOLERANCING MIL-STD-8
SURFACE ROUGHNESS MIL-STD-10
ABBREVIATIONS MIL-STD-12
SCREEN THREAD STANDARDS NBS HANDBOOK H28

2. UNLESS OTHERWISE SPECIFIED:
 (a) ALL OVER
 REMOVE BURS AND SHARP EDGES
 .005 RADIUS MAX.
 - INSIDE CORNERS .005 RADIUS MAX.
 ALL DIAMETERS TO BE CONCENTRIC
 WITH PITCH DIA. OF THREAD
 WITHIN .005 T. I. P.
 ALL DIMENSIONS APPLY AFTER
 PLATING

3. CADMIUM PLATE PER QQ-P-416
TYPE I CLASS C

4. MATERIAL:
STEEL AISI C1010
ALT. FED. SPEC. QQ-S-633 FS 1010

PRINT ISSUED MAY 1 1954

Declassified in Part - Sanitized Copy Approved for Release 2014/03/05 : CIA-RDP78-03330A003300010001-9

MAT'L: CORROSION RESISTANT STEEL TYPE 303

FINISH: PASSIVATE MIL-S-5002

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. ± FRACTIONAL DIM. ± ANGULAR DIM. ± ALL DIMENSIONS GIVEN- IN INCHES	M				F					TITLE SCREW, TRUSS. HD.	
	L				E						
	K				D					SCALE NONE MATL SEE ABOVE	
	J				C						
	H				B						
	G				A					DRAWN BY KUR DATE 1-14-60 DRAWING NUMBER 1360-8-4	
	CHANGES			BY	DATE	CHANGES			BY	DATE	APPROVED

REVISIONS		DWG. NO. 1360-8-6	REV. A
SYM.	DESCRIPTION	BY	DATE
A	REV. 3/16 TO 3/32 PER EC4579		3-21-61

SCREW - TRUSS HEAD
#1-72 X 3/32 LONG

MAT'L: STEEL, CORROSION RESISTANT, CLASS 303
FINISH: PASSIVATE PER MIL-5-5002

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.	MATERIAL SPEC.	FINISH SPEC.	W.O. NO. REQ'D.	TITLE SCREW, TRUSS HEAD					
						DATE	SCALE	DATE	DWG. SIZE	DWS. NO.	REV.
						5-12-61			A	1360-8-6	A
						5-12-61					

1360-9-1

REVISIONS				OWG. NO.	AG
SYM.	DESCRIPTION	BY	DATE		
J.	1360-9 REDRAWN & ADDED 1360-9-18, 19, 20.		7-15-60		STAT
K.	ADDED 1360-9-21		8-3-61		STAT
L.	ADDED 1360-9-22		8-25-61		
M.	ADDED 1360-9-23 PER EC#903		9-28-61		
N.	ADDED 1360-9-24		10-4-61		
O.	ADDED 1360-9-25		10-9-61		
P.	ADDED 1360-9-26		10-25-61		
Q.	ADDED 1360-9-27		10-25-61		
R.	ADDED 1360-9-28		11-15-61		
S.	ADDED 1360-9-29		11-15-61		
T.	ADDED 1360-9-30		11-15-61		
U.	ADDED 1360-9-31 & 44		12-26-62		

PART NUMBER	LENGTH	THREAD	MATERIAL	FINISH	PART NUMBER	LENGTH	THREAD	MATERIAL	FINISH
1360-9-1	1/8	#2-56 NC	CORROSION RESISTANT STEEL TYPE 303	PASSIVATE MIL-S-5002	1360-9-19	3/4	#4-40 NC	CORROSION RESISTANT STEEL TYPE 303	PASSIVATE MIL-S-5002
1360-9-2	500	#0-80 NF	"	"	1360-9-20	7/8	#4-40 NC	"	"
1360-9-3	3/16	#0-80 NF	"	"	1360-9-21	2 1/4	#4-40 NC	"	"
1360-9-4	1/4	#4-40 NC	"	"	1360-9-22	3/16	#4-40 NC	"	"
1360-9-5	1/16	#4-40 NC	"	"	1360-9-23	1/8	#0-80 NF	"	"
1360-9-6	1/4	#4-40 NC	"	"	1360-9-24	1 7/32	#4-40 NC	"	"
1360-9-7	2 1/2	#4-40 NC	"	"	1360-9-25	2 1/4	#2-32 NC	CORROSION RESISTANT STEEL TYPE 18-8	"
1360-9-8	3/32	#0-80 NF	"	"	1360-9-26	11/16	#2-56 NC	"	MAY BE MADE FROM MS 35232-9
1360-9-9	3/8	#2-56 NC	"	"	1360-9-27	1/2	#4-40 NC	"	PASSIVATE MIL-S-5002
1360-9-10	1/4	#2-56 NC	"	"	1360-9-28	1/2	#2-56 NC	"	"
1360-9-11	5/16	#2-56 NC	"	"	1360-9-29	1	#2-56 NC	"	"
1360-9-12	3/16	#3-48 NC	"	"	1360-9-30	7/8	#2-56 NC	"	"
1360-9-13	3/16	#2-56 NC	"	"	31F391			SEE OTHER DUGS	"
1360-9-14	7/32	#4-40 NC	"	"	1360-9-40	1 1/2	4-40	CORROSION RES. STEEL TYPE 18-8	PASSIVATE MIL-S-5002
1360-9-15	9/32	#8-32 NC	"	"	1360-9-41	1 7/16	4-40	"	"
1360-9-16	1/16	#4-40 NC	"	"	1360-9-42	1 5/16	4-40	"	"
1360-9-17	1/4	#3-48 NC	"	"	1360-9-43	5/8	#2-56 NC	"	"
1360-9-18	3/8	#4-40 NC	"	"	1360-9-44	3/4	#2-56 NC	"	"

UNITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MR-1000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

FRACTIONAL DIM. ± .005
DECIMAL DIM. ± .001
ANGULAR DIM. ± 5°
ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY.
NO. 8208

MATERIAL
SPEC.

FINISH
SPEC.

W.O.
NO. 8208

TITLE
SCREW, BINDING ME-6

DATE
7-11-61

SCALE
1/8"

DATE
7-11-61

OWG. NO.
B 1360-9

PRINT ISSUED MAY 1, 1964

PART NUMBER	LENGTH	THREAD	MATERIAL	FINISH	PART NUMBER	LENGTH	THREAD	MATERIAL	FINISH
1360-9-45	7/16	#2-56 NC	CORROSION RESISTANT STEEL TYPE 303	PASSIVATE NHL-5-5002					
1360-9-46	3/16	#4-40 UNF	" "	" "					
1360-9-47	1/32	#0-80 NC	" "	" "					
1360-9-48	1 3/8	#2-56 NC	" "	" "					
1360-9-49	9/32	#2-56 NC	" "	" "					
1360-9-50	7/16	#8-32 NC	" "	" "					
1360-9-51	1/4	#6-32	" "	" "					
1360-9-52	3/8	#6-32	" "	" "					
53	5/16	5-90	" "	" "					
1360-9-54	5/16	#6-32	" "	" "					
1360-9-55	5/16	#1-40	" "	" "					
1360-9-56	9/16	#2-56	" "	" "					
1360-9-57	3/32	#1-72	" "	" "					
1360-9-58	.930	4-40	" "	" "					
1360-9-59	5/32	#0-80	" "	" "					

1360-9
AG

REVISIONS		DATE	BY	DATE
SYM.	DESCRIPTION			
V	ADDED 1360-9-45 E 46 8-47	3-22-62	STAT	
W	ADDED 1360-9-48	4-2-62		
Y	ADDED 1360-9-49	6-23-62		
Z	ADDED 1360-50 & 51	8-2-62		
AA	ADD # 53	10-9-62		
AB	ADDED 1360-52 & 54	10-9-62		
AC	ADDED 1360-9-55	10-15-62		
AD	ADDED 1360-9-56	10-29-62		
AE	ADDED 1360-9-57	4-2-63		
AF	ADDED 1360-9-58	9-9-63		
AG	ADDED 1360-9-59	10-14-63		

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

DECIMAL DIM. $\pm .003$
 FRACTIONAL DIM. $\pm 1/64$
 ANGULAR DIM. $\pm 5^\circ$

ALL DIMENSIONS
GIVEN IN INCHES

NEXT ASSY.

NO. REQ'D.

MATERIAL

FINISH

SPEC

SPEC

W.O.

NO. REQ'D.

TITLE

SCREW BINDING HEAD

DATE

3-22-62

SCALE

DATE

7-22-62

DWG. NO.

B

1360-9

SHEET 2 OF 2

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP
ARE DEFINED IN MP-2000

PRINT ISSUED MAY 1 1964

JOSEPH MERRITT & CO., HARTFORD, CONN. NO. 1001

REVISIONS		DWG. NO.	REV.
		1360-13-29	
SYM.	DESCRIPTION	BY	DATE

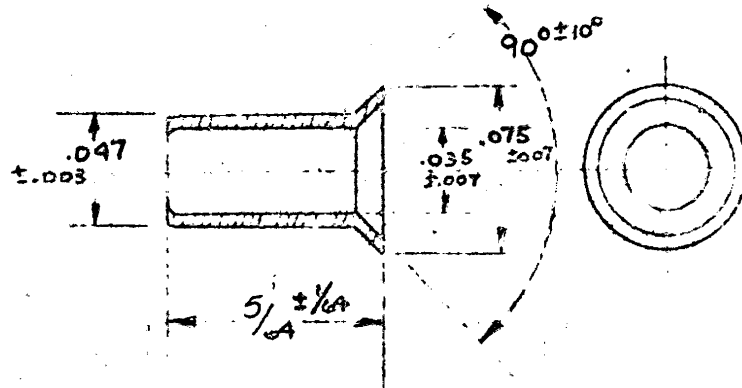
CIRCON # CE 22

CIRCON COMPONENT CORP. PRINT ISSUED MAY 1 1964
GOLETA, CALIF.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)	NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	W.O.	TITLE
DECIMAL DIM. ±.005			GOLD PLATED BRASS	S	2	EYELET
FRACTIONAL DIM. ± 1/64						
ANGULAR DIM. ± 5°						
ALL DIMENSIONS GIVEN IN INCHES.						

DATE	SCALE	DWG. NO.	REV.
12 NOV 62	CS	1360-13-29	
1-13-62	A		



CIRCON CE32F

CIRCON COMPONENT CORP.
GOLETA, CALIF.

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		TEXT ASSY	NO. REQ'D	W D	TITLE	STAT
DECIMAL DIM.	$\pm .003$			NO REQ'D	FUNELET	
FRACTIONAL DIM.	$\pm 1/64$					
ANGULAR DIM.	$\pm 5^\circ$					
ALL DIMENSIONS GIVEN IN INCHES						
MATERIAL GOLD PLATED BRASS				FINISH SPEC	DATE 1-16-63	SCALE C
					DATE 11-12-62	DWG. NO. A
					DWG. NO. 1360-13-31	REV.

		DWG. NO.		REV.	
		1360-14-26			
REVISIONS					
SYM.	DESCRIPTION			BY	DATE
<i>RIVET-OVAL HEAD - SEMI-TUBULAR</i> <i>SHANK DIA. - .062</i> <i>HEAD DIA. - .125</i> <i>HEAD HEIGHT - .028</i> <i>LENGTH UNDER HEAD - .562</i> <i>MATERIAL - BRASS</i> <i>PURCHASE FROM: EDWIN B. STIMPSON CO.</i> <i>70 FRANKLIN AVE.</i> <i>BROOKLYN 5, N.Y.</i> <i>THEIR PART NO. H586</i>					
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000					
TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5'$ ALL DIMENSIONS GIVEN IN INCHES		NEXT ASS'Y. NO. REQ'D.	NO. REQ'D.	W.O. NO. REQ'D.	TITLE RIVET-OVAL HD. SEMI-TUBULAR DATE 3-15-61 SCALE DATE APPROVED
MATERIAL SPEC.		FINISH SPEC.		DATE DATE DATE	DWG. NO. 1360-14-26 REV.

"MICRO SWITCH"
 DIVISION OF
 MINNEAPOLIS - HONEYWELL REGULATOR CO.
 PART No. 1-SX1-T

PRINT ISSUED MAY 1 1964

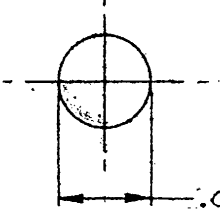
TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .025$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 2^\circ$ ALL DIMENSIONS GIVEN IN INCHES	M				F					TITLE MICRO-SWITCH SCALE DATE 4-30-64 DATE	MATL. DRAWING NUMBER 1360-18-2	STAT
	L				E							
	K				D							
	J				C							
	H				B							
	G				A					APPROVED		STAT
		CHANGES	BY	DATE		CHANGES	BY	DATE				

#1-72 NF-2 x 3/32 lg. HEX SOCKET SET SCREW S. S.		REVISIONS		DWG. NO. 1360-27-16	REV.
		SYM.	DESCRIPTION	BY	DATE

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.		W. O.	TITLE <i>SET SCREW #1-72</i>		
DECIMAL DIM. ± .005 FRACTIONAL DIM. ± 1/64 ANGULAR DIM. ± 5°					DRAWN <i>ESH</i>	DATE <i>10/15/62</i>	SCALE <i>A</i>	
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL <i>S.S.</i>	FINISH <i>S.S.</i>	CHECKED 	DATE 	DWG. NO. 1360-27-16
					APPROVED 	DATE 		REV.

				DWG. NO.		REV.	
				1360-38-5			
REVISIONS							
SYM.	DESCRIPTION				BY	DATE	



$\pm .00005$
.06250 DIA.

NOTES:

1. PURCHASE FROM -
PIC DESIGN CORP.
477 ATLANTIC AVE,
EAST ROCKAWAY, L.I., N.Y.
P/N AK-1 OR EQUIV.
2 HARDNESS - ROCKWELL C55-60
LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

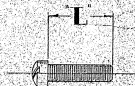
PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W. O.	TITLE	STAT
DECIMAL DIM. $\pm .005$				NO. REQ'D.	BALL - $\frac{1}{16}$ DIA.	
FRACTIONAL DIM. $\pm 1/64$						
ANGULAR DIM. $\pm .5^\circ$						
ALL DIMENSIONS GIVEN IN INCHES						

MATERIAL STAINLESS STEEL	FINISH	DATE 5-24-63	SCALE 10:1	DWG. NO. 1360-38-5	REV.
SPEC. 440	SPEC.	DATE 27 MAY 63	DWG. SIZE A		
		DATE 5-24-63			

PART NO.	LENGTH	THRESHOLD	MATERIAL	FINISH	REMARKS
1360-40-1	1/32"	#1-32	CORROSION RESISTANT MIL-S-5000		
2	3/16"	#1-32			
3	1/8"	#2-32			
4	1/8"	#2-32			
5	1/8"	#3-32			
6	1/8"	#0-80			
7	1/8"	#1-72			
8	1/8"	#2-32			
9	1/8"	#2-32			
10	2/32"	#4-40			
11	1/2"	#1-72			
12	1/2"	#4-40			
13	3/16"	#2-32			
14	5/32"	#0-80			
15	1/8"	#1-64			
16	1/8"	#1-72			
17	2/16"	#4-40			
18	1/4"	#2-32			
19	5/16"	#00-100	EXCESS FLAISED		
1360-40-20	3/16"	#0-80	CORROSION RESISTANT MIL-S-5000		
21	3/16"	#2-32			
22	3/32"	#4-40			
23	1/4"	#4-40			
24	3/16"	#1-72			
25	5/16"	SEPARATE DRAWING			
26	5/16"	SEPARATE DRAWING			
27	1/8"	CORROSION RESISTANT MIL-S-5000			
28	1/8"	#0-80			
29	7/8"	#2-32			
30	7/8"	#00-80			
31	1/8"	#000-100			
32	1/16"	#0-80	BLACK OIL OIL RESISTANT MIL-S-5000		
33	7/16"	#2-32			
34	5/16"	SEPARATE DRAWING			
35	1/8"	#0-80	CORROSION RESISTANT MIL-S-5000		
36	7/16"	#1-72			
37	3/32"	#0-80			
38	3/32"	#2-32			
39	7/16"	#2-32			
1360-40-40	5/32"	#1-72			
41	1/8"	#0-80			
42	1/8"	#0-80			
43	1/8"	#1-72			
48	3/16"	SEPARATE DWGS			
1360-40-49	5/16"	#0-80	CORROSION RESISTANT MIL-S-5000		
1360-40-50	3/32"	#2-32			
1360-40-51	3/32"	#1-72	CORROSION RESISTANT MIL-S-5000		

INST. NO. 2



REVISIONS		1360-40	AA
REV	DESCRIPTION	BY	DATE
W	REDRAWN & ADDED 1360-40-52 TO 41 42 43 44 45 46 47 48 49		11-6-50
X	ADDED - 48		11-6-50
Y	ADDED - 49		11-6-50
Z	ADDED - 50		11-6-50
AA	ADDED 1360-40-51-EC 4525		11-6-50

1360-40-
AA

PRINT ISSUED MAY 1 1964

UNIT OF ACCEPTANCE INFORMATION AND SPECIFIC INSTRUCTIONS		TOLERANCES		NEXT ASST. PLANT	
UNLESS OTHERWISE SPECIFIED:		DECIMAL DIM. - 1/16" 1/32" 1/64"		FRACTIONAL DIM. - 1/8" 1/4" 3/8" 1/2" 5/8" 3/4" 7/8" 1" 1 1/8" 1 1/4" 1 1/2" 1 3/4" 2" 2 1/4" 2 1/2" 2 3/4" 3" 3 1/4" 3 1/2" 3 3/4" 4" 4 1/4" 4 1/2" 4 3/4" 5" 5 1/4" 5 1/2" 5 3/4" 6" 6 1/4" 6 1/2" 6 3/4" 7" 7 1/4" 7 1/2" 7 3/4" 8" 8 1/4" 8 1/2" 8 3/4" 9" 9 1/4" 9 1/2" 9 3/4" 10" 10 1/4" 10 1/2" 10 3/4" 11" 11 1/4" 11 1/2" 11 3/4" 12" 12 1/4" 12 1/2" 12 3/4" 13" 13 1/4" 13 1/2" 13 3/4" 14" 14 1/4" 14 1/2" 14 3/4" 15" 15 1/4" 15 1/2" 15 3/4" 16" 16 1/4" 16 1/2" 16 3/4" 17" 17 1/4" 17 1/2" 17 3/4" 18" 18 1/4" 18 1/2" 18 3/4" 19" 19 1/4" 19 1/2" 19 3/4" 20" 20 1/4" 20 1/2" 20 3/4" 21" 21 1/4" 21 1/2" 21 3/4" 22" 22 1/4" 22 1/2" 22 3/4" 23" 23 1/4" 23 1/2" 23 3/4" 24" 24 1/4" 24 1/2" 24 3/4" 25" 25 1/4" 25 1/2" 25 3/4" 26" 26 1/4" 26 1/2" 26 3/4" 27" 27 1/4" 27 1/2" 27 3/4" 28" 28 1/4" 28 1/2" 28 3/4" 29" 29 1/4" 29 1/2" 29 3/4" 30" 30 1/4" 30 1/2" 30 3/4" 31" 31 1/4" 31 1/2" 31 3/4" 32" 32 1/4" 32 1/2" 32 3/4" 33" 33 1/4" 33 1/2" 33 3/4" 34" 34 1/4" 34 1/2" 34 3/4" 35" 35 1/4" 35 1/2" 35 3/4" 36" 36 1/4" 36 1/2" 36 3/4" 37" 37 1/4" 37 1/2" 37 3/4" 38" 38 1/4" 38 1/2" 38 3/4" 39" 39 1/4" 39 1/2" 39 3/4" 40" 40 1/4" 40 1/2" 40 3/4" 41" 41 1/4" 41 1/2" 41 3/4" 42" 42 1/4" 42 1/2" 42 3/4" 43" 43 1/4" 43 1/2" 43 3/4" 44" 44 1/4" 44 1/2" 44 3/4" 45" 45 1/4" 45 1/2" 45 3/4" 46" 46 1/4" 46 1/2" 46 3/4" 47" 47 1/4" 47 1/2" 47 3/4" 48" 48 1/4" 48 1/2" 48 3/4" 49" 49 1/4" 49 1/2" 49 3/4" 50" 50 1/4" 50 1/2" 50 3/4" 51" 51 1/4" 51 1/2" 51 3/4" 52" 52 1/4" 52 1/2" 52 3/4" 53" 53 1/4" 53 1/2" 53 3/4" 54" 54 1/4" 54 1/2" 54 3/4" 55" 55 1/4" 55 1/2" 55 3/4" 56" 56 1/4" 56 1/2" 56 3/4" 57" 57 1/4" 57 1/2" 57 3/4" 58" 58 1/4" 58 1/2" 58 3/4" 59" 59 1/4" 59 1/2" 59 3/4" 60" 60 1/4" 60 1/2" 60 3/4" 61" 61 1/4" 61 1/2" 61 3/4" 62" 62 1/4" 62 1/2" 62 3/4" 63" 63 1/4" 63 1/2" 63 3/4" 64" 64 1/4" 64 1/2" 64 3/4" 65" 65 1/4" 65 1/2" 65 3/4" 66" 66 1/4" 66 1/2" 66 3/4" 67" 67 1/4" 67 1/2" 67 3/4" 68" 68 1/4" 68 1/2" 68 3/4" 69" 69 1/4" 69 1/2" 69 3/4" 70" 70 1/4" 70 1/2" 70 3/4" 71" 71 1/4" 71 1/2" 71 3/4" 72" 72 1/4" 72 1/2" 72 3/4" 73" 73 1/4" 73 1/2" 73 3/4" 74" 74 1/4" 74 1/2" 74 3/4" 75" 75 1/4" 75 1/2" 75 3/4" 76" 76 1/4" 76 1/2" 76 3/4" 77" 77 1/4" 77 1/2" 77 3/4" 78" 78 1/4" 78 1/2" 78 3/4" 79" 79 1/4" 79 1/2" 79 3/4" 80" 80 1/4" 80 1/2" 80 3/4" 81" 81 1/4" 81 1/2" 81 3/4" 82" 82 1/4" 82 1/2" 82 3/4" 83" 83 1/4" 83 1/2" 83 3/4" 84" 84 1/4" 84 1/2" 84 3/4" 85" 85 1/4" 85 1/2" 85 3/4" 86" 86 1/4" 86 1/2" 86 3/4" 87" 87 1/4" 87 1/2" 87 3/4" 88" 88 1/4" 88 1/2" 88 3/4" 89" 89 1/4" 89 1/2" 89 3/4" 90" 90 1/4" 90 1/2" 90 3/4" 91" 91 1/4" 91 1/2" 91 3/4" 92" 92 1/4" 92 1/2" 92 3/4" 93" 93 1/4" 93 1/2" 93 3/4" 94" 94 1/4" 94 1/2" 94 3/4" 95" 95 1/4" 95 1/2" 95 3/4" 96" 96 1/4" 96 1/2" 96 3/4" 97" 97 1/4" 97 1/2" 97 3/4" 98" 98 1/4" 98 1/2" 98 3/4" 99" 99 1/4" 99 1/2" 99 3/4" 100" 100 1/4" 100 1/2" 100 3/4" 101" 101 1/4" 101 1/2" 101 3/4" 102" 102 1/4" 102 1/2" 102 3/4" 103" 103 1/4" 103 1/2" 103 3/4" 104" 104 1/4" 104 1/2" 104 3/4" 105" 105 1/4" 105 1/2" 105 3/4" 106" 106 1/4" 106 1/2" 106 3/4" 107" 107 1/4" 107 1/2" 107 3/4" 108" 108 1/4" 108 1/2" 108 3/4" 109" 109 1/4" 109 1/2" 109 3/4" 110" 110 1/4" 110 1/2" 110 3/4" 111" 111 1/4" 111 1/2" 111 3/4" 112" 112 1/4" 112 1/2" 112 3/4" 113" 113 1/4" 113 1/2" 113 3/4" 114" 114 1/4" 114 1/2" 114 3/4" 115" 115 1/4" 115 1/2" 115 3/4" 116" 116 1/4" 116 1/2" 116 3/4" 117" 117 1/4" 117 1/2" 117 3/4" 118" 118 1/4" 118 1/2" 118 3/4" 119" 119 1/4" 119 1/2" 119 3/4" 120" 120 1/4" 120 1/2" 120 3/4" 121" 121 1/4" 121 1/2" 121 3/4" 122" 122 1/4" 122 1/2" 122 3/4" 123" 123 1/4" 123 1/2" 123 3/4" 124" 124 1/4" 124 1/2" 124 3/4" 125" 125 1/4" 125 1/2" 125 3/4" 126" 126 1/4" 126 1/2" 126 3/4" 127" 127 1/4" 127 1/2" 127 3/4" 128" 128 1/4" 128 1/2" 128 3/4" 129" 129 1/4" 129 1/2" 129 3/4" 130" 130 1/4" 130 1/2" 130 3/4" 131" 131 1/4" 131 1/2" 131 3/4" 132" 132 1/4" 132 1/2" 132 3/4" 133" 133 1/4" 133 1/2" 133 3/4" 134" 134 1/4" 134 1/2" 134 3/4" 135" 135 1/4" 135 1/2" 135 3/4" 136" 136 1/4" 136 1/2" 136 3/4" 137" 137 1/4" 137 1/2" 137 3/4" 138" 138 1/4" 138 1/2" 138 3/4" 139" 139 1/4" 139 1/2" 139 3/4" 140" 140 1/4" 140 1/2" 140 3/4" 141" 141 1/4" 141 1/2" 141 3/4" 142" 142 1/4" 142 1/2" 142 3/4" 143" 143 1/4" 143 1/2" 143 3/4" 144" 144 1/4" 144 1/2" 144 3/4" 145" 145 1/4" 145 1/2" 145 3/4" 146" 146 1/4" 146 1/2" 146 3/4" 147" 147 1/4" 147 1/2" 147 3/4" 148" 148 1/4" 148 1/2" 148 3/4" 149" 149 1/4" 149 1/2" 149 3/4" 150" 150 1/4" 150 1/2" 150 3/4" 151" 151 1/4" 151 1/2" 151 3/4" 152" 152 1/4" 152 1/2" 152 3/4" 153" 153 1/4" 153 1/2" 153 3/4" 154" 154 1/4" 154 1/2" 154 3/4" 155" 155 1/4" 155 1/2" 155 3/4" 156" 156 1/4" 156 1/2" 156 3/4" 157" 157 1/4" 157 1/2" 157 3/4" 158" 158 1/4" 158 1/2" 158 3/4" 159" 159 1/4" 159 1/2" 159 3/4" 160" 160 1/4" 160 1/2" 160 3/4" 161" 161 1/4" 161 1/2" 161 3/4" 162" 162 1/4" 162 1/2" 162 3/4" 163" 163 1/4" 163 1/2" 163 3/4" 164" 164 1/4" 164 1/2" 164 3/4" 165" 165 1/4" 165 1/2" 165 3/4" 166" 166 1/4" 166 1/2" 166 3/4" 167" 167 1/4" 167 1/2" 167 3/4" 168" 168 1/4" 168 1/2" 168 3/4" 169" 169 1/4" 169 1/2" 169 3/4" 170" 170 1/4" 170 1/2" 170 3/4" 171" 171 1/4" 171 1/2" 171 3/4" 172" 172 1/4" 172 1/2" 172 3/4" 173" 173 1/4" 173 1/2" 173 3/4" 174" 174 1/4" 174 1/2" 174 3/4" 175" 175 1/4" 175 1/2" 175 3/4" 176" 176 1/4" 176 1/2" 176 3/4" 177" 177 1/4" 177 1/2" 177 3/4" 178" 178 1/4" 178 1/2" 178 3/4" 179" 179 1/4" 179 1/2" 179 3/4" 180" 180 1/4" 180 1/2" 180 3/4" 181" 181 1/4" 181 1/2" 181 3/4" 182" 182 1/4" 182 1/2" 182 3/4" 183" 183 1/4" 183 1/2" 183 3/4" 184" 184 1/4" 184 1/2" 184 3/4" 185" 185 1/4" 185 1/2" 185 3/4" 186" 186 1/4" 186 1/2" 186 3/4" 187" 187 1/4" 187 1/2" 187 3/4" 188" 188 1/4" 188 1/2" 188 3/4" 189" 189 1/4" 189 1/2" 189 3/4" 190" 190 1/4" 190 1/2" 190 3/4" 191" 191 1/4" 191 1/2" 191 3/4" 192" 192 1/4" 192 1/2" 192 3/4" 193" 193 1/4" 193 1/2" 193 3/4" 194" 194 1/4" 194 1/2" 194 3/4" 195" 195 1/4" 195 1/2" 195 3/4" 196" 196 1/4" 196 1/2" 196 3/4" 197" 197 1/4" 197 1/2" 197 3/4" 198" 198 1/4" 198 1/2" 198 3/4" 199" 199 1/4" 199 1/2" 199 3/4" 200" 200 1/4" 200 1/2" 200 3/4" 201" 201 1/4" 201 1/2" 201 3/4" 202" 202 1/4" 202 1/2" 202 3/4" 203" 203 1/4" 203 1/2" 203 3/4" 204" 204 1/4" 204 1/2" 204 3/4" 205" 205 1/4" 205 1/2" 205 3/4" 206" 206 1/4" 206 1/2" 206 3/4" 207" 207 1/4" 207 1/2" 207 3/4" 208" 208 1/4" 208 1/2" 208 3/4" 209" 209 1/4" 209 1/2" 209 3/4" 210" 210 1/4" 210 1/2" 210 3/4" 211" 211 1/4" 211 1/2" 211 3/4" 212" 212 1/4" 212 1/2" 212 3/4" 213" 213 1/4" 213 1/2" 213 3/4" 214" 214 1/4" 214 1/2" 214 3/4" 215" 215 1/4" 215 1/2" 215 3/4" 216" 216 1/4" 216 1/2" 216 3/4" 217" 217 1/4" 217 1/2" 217 3/4" 218" 218 1/4" 218 1/2" 218 3/4" 219" 219 1/4" 219 1/2" 219 3/4" 220" 220 1/4" 220 1/2" 220 3/4" 221" 221 1/4" 221 1/2" 221 3/4" 222" 222 1/4" 222 1/2" 222 3/4" 223" 223 1/4" 223 1/2" 223 3/4" 224" 224 1/4" 224 1/2" 224 3/4" 225" 225 1/4" 225 1/2" 225 3/4" 226" 226 1/4" 226 1/2" 226 3/4" 227" 227 1/4" 227 1/2" 227 3/4" 228" 228 1/4" 228 1/2" 228 3/4" 229" 229 1/4" 229 1/2" 229 3/4" 230" 230 1/4" 230 1/2" 230 3/4" 231" 231 1/4" 231 1/2" 231 3/4" 232" 232 1/4" 232 1/2" 232 3/4" 233" 233 1/4" 233 1/2" 233 3/4" 234" 234 1/4" 234 1/2" 234 3/4" 235" 235 1/4" 235 1/2" 235 3/4" 236" 236 1/4" 236 1/2" 236 3/4" 237" 237 1/4" 237 1/2" 237 3/4" 238" 238 1/4" 238 1/2" 238 3/4" 239" 239 1/4" 239 1/2" 239 3/4" 240" 240 1/4" 240 1/2" 240 3/4" 241" 241 1/4" 241 1/2" 241 3/4" 242" 242 1/4" 242 1/2" 242 3/4" 243" 243 1/4" 243 1/2" 243 3/4" 244" 244 1/4" 244 1/2" 244 3/4" 245" 245 1/4" 245 1/2" 245 3/4" 246" 246 1/4" 246 1/2" 246 3/4" 247" 247 1/4" 247 1/2" 247 3/4" 248" 248 1/4" 248 1/2" 248 3/4" 249" 249 1/4" 249 1/2" 249 3/4" 250" 250 1/4" 250 1/2" 250 3/4" 251" 251 1/4" 251 1/2" 251 3/4" 252" 252 1/4" 252 1/2" 252 3/4" 253" 253 1/4" 253 1/2" 253 3/4" 254" 254 1/4" 254 1/2" 254 3/4" 255" 255 1/4" 255 1/2" 255 3/4" 256" 256 1/4" 256 1/2" 256 3/4" 257" 257 1/4" 257 1/2" 257 3/4" 258" 258 1/4" 258 1/2" 258 3/4" 259" 259 1/4" 259 1/2" 259 3/4" 260" 260 1/4" 260 1/2" 260 3/4" 261" 261 1/4" 261 1/2" 261 3/4" 262" 262 1/4" 262 1/2" 262 3/4" 263" 263 1/4" 263 1/2" 263 3/4" 264" 264 1/4" 264 1/2" 264 3/4" 265" 265 1/4" 265 1/2" 265 3/4" 266" 266 1/4" 266 1/2" 266 3/4" 267" 267 1/4" 267 1/2" 267 3/4" 268" 268 1/4" 268 1/2" 268 3/4" 269" 269 1/4" 269 1/2" 269 3/4" 270" 270 1/4" 270 1/2" 270 3/4" 271" 271 1/4" 271 1/2" 271 3/4" 272" 272 1/4" 272 1/2" 272 3/4" 273" 273 1/4" 273 1/2" 273 3/4" 274" 274 1/4" 274 1/2" 274 3/4" 275" 275 1/4" 275 1/2" 275 3/4" 276" 276 1/4" 276 1/2" 276 3/4" 277" 277 1/4" 277 1/2" 277 3/4" 278" 278 1/4" 278 1/2" 278 3/4" 279" 279 1/4" 279 1/2" 279 3/4" 280" 280 1/4" 280 1/2" 280 3/4" 281" 281 1/4" 281 1/2" 281 3/4" 282" 282 1/4" 282 1/2" 282 3/4" 283" 283 1/4" 283 1/2" 283 3/4" 284" 284 1/4" 284 1/2" 284 3/4" 285" 285 1/4" 285 1/2" 285 3/4" 286" 286 1/4" 286 1/2" 286 3/4" 287" 287 1/4" 287 1/2" 287 3/4" 288" 288 1/4" 288 1/2" 288 3/4" 289" 289 1/4" 289 1/2" 289 3/4" 290" 290 1/4" 290 1/2" 290 3/4" 291" 291 1/4" 291 1/2" 291 3/4" 292" 292 1/4" 292 1/2" 292 3/4" 293" 293 1/4" 293 1/2" 293 3/4" 294" 294 1/4" 294 1/2" 294 3/4" 295" 295 1/4" 295 1/2" 295 3/4" 296" 296 1/4" 296 1/2" 296 3/4" 297" 297 1/4" 297 1/2" 297 3/4" 298" 298 1/4" 298 1/2" 298 3/4" 299" 299 1/4" 299 1/2" 299 3/4" 300" 300 1/4" 300 1/2" 300 3/4" 301" 301 1/4" 301 1/2" 301 3/4" 302" 302 1/4" 302 1/2" 302 3/4" 303" 303 1/4" 303 1/2" 303 3/4" 304" 304 1/4" 304 1/2" 304 3/4" 305" 305 1/4" 305 1/2" 305 3/4" 306" 306 1/4" 306 1/2" 306 3/4" 307" 307 1/4" 307 1/2" 307 3/4" 308" 308 1/4" 308 1/2" 308 3/4" 309" 309 1/4" 309 1/2" 309 3/4" 310" 310 1/4" 310 1/	

		DWG. NO.	REV.
REVISIONS		1360-45-26	
SYM.	DESCRIPTION	BY	DATE

#2-56 NC-2 HEX NUT

WIDTH ACROSS FLATS 1/8
" CORNERS 9/64

THICKNESS 3/64

BRASS - CADMIUM PLATED

SUGGESTED VENDOR

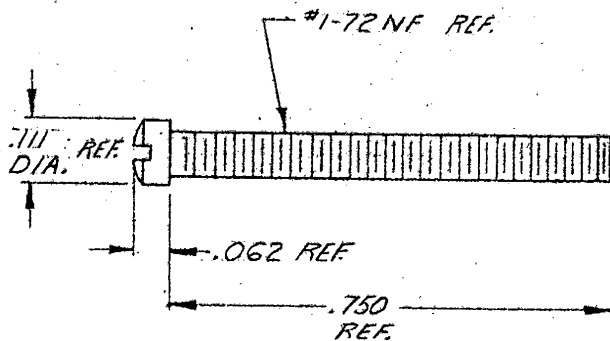
CIRCON COMPONENT CORP.
SANTA BARBARA
GOLETA, CALIFORNIA
PART # CN-2

PRINT ISSUED - MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.			W.O.	TITLE		STAT
						NO. REQ'D.	HEX NUT #2-56		
DECIMAL DIM	± .005			MATERIAL	FINISH	DRAWN	DATE	SCALE	
FRACTIONAL DIM.	± 1/64					CHECKED	DATE	DWG. SIZE	
ANGULAR DIM.	± 5°			SPEC.	SPEC.	APPROVED	DATE	DWG. NO.	
ALL DIMENSIONS GIVEN IN INCHES								A	1360-45-26

REVISIONS			
SYM.		DESCRIPTION	DATE



NOTES:

I. CIRCON COMPONENT CORP. OF SANTA BARBARA,
GOLETA, CALIF.

P/N CS 1245 OR EQUIV.

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.G.	TITLE	STAT
DECIMAL DIM.	± .005			NO. REQ'D.	SCREW-INSTRUMENT H.D.	
FRACTIONAL DIM.	± 1/64				#1-72 X 3/4	STAT
ANGULAR DIM.	± 5°				DATE 6-21-63	
ALL DIMENSIONS GIVEN IN INCHES					DATE 6-24-63	
					SCALE	
					DWG. SIZE	
					DWG. NO.	
					REV.	
					A	
					A1360-40-47	

		DWG. NO.	REV.
		1360-56-5	
REVISIONS			
SYM.	DESCRIPTION	BY	DATE

BALL BEARING
PURCHASE FROM: NEW HAMPSHIRE BALL BEARING CO.
PETERSBOROUGH, N. H.
BRG # 5FR 144 PP

SUPERCEDED BY P/N 2500-51

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP
 ARE DEFINED IN MP 2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.			W.O.	TITLE		STAT
DECIMAL DIM. $\pm .005$						NO. REQ'D.	BALL BEARING		
FRACTIONAL DIM. $\pm 1/64$							DATE	SCALE	
ANGULAR DIM. $\pm 5^\circ$							3-14-61		
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL	FINISH	CHECKED	DATE	DWG. SIZE	DWG. NO.
				SPEC.	SPEC.	APPROVED	DATE	A	1360-56-5
									REV.

REVISIONS			1360-56-30	REV.
SYM.	DESCRIPTION	BY	DATE	
A	REV 1db TO 2db PER EC 743	LYT	10-23-61	

BALL BEARING
PURCHASE FROM: NEW HAMPSHIRE BALL BEARING CO.
PETERBOROUGH, N.H.
BRG. # SFR133 PPK36 [Ⓐ]
SMOOTHERATOR RATING. 2 db MAX. DWELL
MAX RUNOUT .50 MICROINCH
LUBRICATION MIL-L-608SA

PRINT ISSUED MAY 1 1964

UNITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE		STAT	
DECIMAL DIM.	± .005	1280-1	7	NO. REQ'D.		BALL BEARING		STAT	
FRACTIONAL DIM.	± 1/64					DATE 4 APR 61		SCALE 00	
ANGULAR DIM.	± 5°					DATE		DWG. NO. 1360-56-30	
ALL DIMENSIONS GIVEN IN INCHES				MATERIAL SPEC.		FINISH SPEC.		DWG. SIZE A	
						APPROVED		DATE	

NEW HAMPSHIRE BALL BEARING SFR-156-PP-K36 O.D. .3125 I.D. .1875 PETERBOROUGH, N.H.		REVISIONS		DWG. NO. 1360-56-31	REV.
		SYM.	DESCRIPTION	BY	DATE

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES		NEXT ASS'Y. 	NO. REQ'D. 	MATERIAL SPEC. <i>✓</i>	FINISH SPEC. <i>✓</i>	W.O. NO. REQ'D. 	TITLE BALL BEARING O.D. .3125 I.D. .1875 DATE 11-1-61 SCALE ~ DATE 11-1-61 DWG. SIZE A DWG. NO. 1360-56-31 REV.
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		DWG. NO.	REV.
REVISIONS		1360-56-43	
SYM.	DESCRIPTION	BY	DATE

BALL BEARINGPURCHASE FROM: MINIATURE PRECISION BEARING INC.

KEENE, NEW HAMPSHIRE

THEIR CAT. NO. S418 FCHHE - P58

LUBRICATION GEF 50, DIP # CENTRIFUGE AT 200 G'S

SMOOTHERATOR DWELL 2 Db MAX

50 MICRO INCH MAX. RUNOUT OR

NEW HAMPSHIRE BALL BEARING CO.

PETERBOROUGH NEW HAMPSHIRE

THEIR CAT. NO. SFR 144 PPEE - K58

LUBRICATION GEF 50 DIP # CENTRIFUGE @ 200 G'S

SMOOTHERATOR DWELL 2 Db MAX.

50 MICRO INCH MAX RUNOUT

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED):		NEXT ASS'Y.	NO. REQ'D.	MATERIAL	FINISH	W.O.	TITLE	STAT	
DECIMAL DIM. $\pm .005$						NO. REQ'D.	BALL BEARING		
FRACTIONAL DIM. $\pm 1/64$							DATE 10-27-61	SCALE	STAT
ANGULAR DIM. $\pm 5^\circ$							DATE	DWG. SIZE	DWG. NO.
ALL DIMENSIONS GIVEN IN INCHES				SPEC.	SPEC.	APPROVED	DATE	A 1360-56-43	

CLEARPRINT 1000H

REVISIONS		DWG. NO.	REV.
		1360-56-44	
SYM.	DESCRIPTION	BY	DATE

BALL BEARING

PURCHASE FROM: MINIATURE PRECISION BEARING, INC.
 KEENE, NEW HAMPSHIRE
 THEIR CAT. NO. S6632-FCHHE-P58
 LUBRICATION GEF 50, DIP & CENTRIFUGE @ 200 G's
 SMOOTHERATOR DWELL 2 Db MAX.
50 MICRO INCH MAX. RUNOUT OR
 NEW HAMPSHIRE BALL BEARING CO.
 PETERBOROUGH, NEW HAMPSHIRE
 THEIR CAT. NO. SFR 166 PEE-K58
 LUBRICATION GEF 50 DIP & CENTRIFUGE @ 200 G's
 SMOOTHERATOR DWELL 2 Db MAX.
 50 MICRO INCH MAX RUNOUT

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	MATERIAL		FINISH	TITLE		STAT
DECIMAL DIM.	± .005						BALL BEARING		
FRACTIONAL DIM.	± 1/64						DATE	SCALE	STAT
ANGULAR DIM.	± 5°						10-26-61		
ALL DIMENSIONS GIVEN IN INCHES				SPEC	SPEC.	APPROVED	DATE	DWG. NO.	REV.
								A	1360-56-44

CLEARPRINT 1000H

		DWG. NO.	REV.
REVISIONS		1360-56-67	
SYM.	DESCRIPTION	BY	DATE

*BALL BEARING
PURCHASE FROM THE
NEW HAMPSHIRE BALL BEARING CO.
PETERSBOROUGH, N. H.
BRG. SR133UPC2*

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED) DECIMAL DIM. $\pm .005$ FRACTIONAL DIM. $\pm 1/64$ ANGULAR DIM. $\pm 5^\circ$ ALL DIMENSIONS GIVEN IN INCHES	NEXT ASS'Y.	NO. REQ'D.			W. O.	TITLE	
					NO. REQ'D.	BALL BEARING	
			MATERIAL	FINISH	DRAWN	DATE	SCALE
			SPEC.	SPEC.	CHECKED	DATE	DWG. NO.
				APPROVED	DATE	A	1360-56-67

REVISIONS		DWG. NO.	REV.
		1360-106-1	A
SYM.	DESCRIPTION	BY	DATE
A	INSIDE DIA. ADDED, EC 3361		13 MAY 1964

ORIGINAL SOURCE OF SUPPLY:

MINICLUTCH COMPANY

375 MORSE ST.

HAMDEN, CONN.

THEIR # N52-HU-3

FOR MTING. OVER $.190^{+.001}_{-.001}$ DIA. ST. KNURLFOR OUTER RACE DIA. OF $.625^{+.001}_{-.001}$

OVER ALL WIDTH OF .250

RATED TORQUE 3.5 IN. LB.

INSIDE DIA. .1885 - .1875 DIA.

APPLICABILITY
SPECS.

PRINT ISSUED MAY 1 1964

LIMITS OF ACCEPTABLE WORKMANSHIP ARE DEFINED IN MP-2000

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.		TITLE	
DECIMAL DIM. $\pm .005$				NO. REQ'D.		ONE-WAY CLUTCH	
FRACTIONAL DIM. $\pm 1/64$						DATE	SCALE
ANGULAR DIM. $\pm 5'$						10-3-62	
ALL DIMENSIONS GIVEN IN INCHES						DATE	DWG. NO.
						16 MAY 63	1360-106-1
						DATE	REV.
						10-5-62	A

REVISIONS		DWG. NO.	REV.
		1360-56-66	
SYM.	DESCRIPTION	BY	DATE

*BALL BEARING
PURCHASE FROM THE
NEW HAMPSHIRE BALL BEARING CO.
PETERSBOROUGH, N.H.
BEG. 3 TCR 12-16U*

PRINT ISSUED MAY 1 1964

TOLERANCES (UNLESS OTHERWISE SPECIFIED)		NEXT ASS'Y.	NO. REQ'D.	W.O.	TITLE
DECIMAL DIM.	± .005			NO. REQ'D.	<i>BALL BEARING</i>
FRACTIONAL DIM.	± 1/64			DRAWN	
ANGULAR DIM.	± 5°			<i>RSN</i>	DATE
ALL DIMENSIONS GIVEN IN INCHES				CHECKED	<i>4/19/64</i>
				APPROVED	DATE
					SCALE
					DWG. NO.
					SIZE
					<i>1360-56-66</i>
					REV.